

EXHIBIT 33

Page 1

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE DISTRICT OF NEW JERSEY

3
4 IN RE: JOHNSON &) MDL No.
) 16-2738 (MAS)(RLS)
 JOHNSON TALCUM POWDER)
)
5 PRODUCTS MARKETING,)
)
 SALES PRACTICES, AND)
)
6 PRODUCTS LIABILITY)
)
 LITIGATION,)
)
7 _____)

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13 Deposition of SHAWN LEVY, M.D., via
14 Zoom Videoconference, taken at Blood Hurst &
15 O'Reardon, 501 West Broadway, Suite 1490,
16 San Diego, California, commencing at
17 9:11 a.m., on Wednesday, May 8, 2024,
18 reported stenographically by Lisa Moskowitz,
19 California CSR 10816, Nevada CCR 991,
20 Washington CCR 21001437, Certified Realtime
21 Reporter, RPR, CLR, NCRA Realtime Systems
22 Administrator.

23 - - -

24 GOLKOW, a Veritext Division
25 877.370.3377 ph | 917.591.5672 fax

<p>Page 2</p> <p>1 APPEARANCES:</p> <p>2</p> <p>3 On behalf of Plaintiffs:</p> <p>4 BEASLEY ALLEN LAW FIRM</p> <p>5 BY: P. Leigh O'Dell</p> <p>6 leigh.odell@beasleyallen.com</p> <p>7 BY: JENNIFER EMMEL, PH.D.</p> <p>8 jennifer.emmel@beasleyallen.com</p> <p>9 BY: MARGARET M. THOMPSON (Remote)</p> <p>10 margaret.thompson@beasleyallen.com</p> <p>11 218 Commerce Street</p> <p>12 Montgomery, Alabama 36103-4160</p> <p>13 (334) 269-2343</p> <p>14</p> <p>15 On behalf of MDL Plaintiffs:</p> <p>16</p> <p>17 ASHCRAFT & GEREL, LLP</p> <p>18 BY: MICHELLE A. PARFITT (Remote)</p> <p>19 mparfitt@ashcraftlaw.com</p> <p>20 1825 K Street NW</p> <p>21 Suite 700</p> <p>22 Washington, DC 20006</p> <p>23 (202) 759-7648</p> <p>24</p> <p>25 On behalf of New Jersey Plaintiffs:</p> <p>ANAPOL WEISS</p> <p>BY: RICHARD GOLOMB (Remote)</p> <p>rgolomb@anapolweiss.com</p> <p>130 North 18th Street</p> <p>Suite 1600</p> <p>Philadelphia, Pennsylvania 19103</p> <p>(215) 608-9645</p>	<p>Page 4</p> <p>1 INDEX</p> <p>2 EXAMINATION OF PAGE</p> <p>3 SHAWN LEVY, M.D.</p> <p>4 By Attorney Davidson 6, 331, 360</p> <p>5 By Attorney O'Dell 293, 354</p> <p>6</p> <p>7</p> <p>8 DEPOSITION EXHIBITS</p> <p>9 NUMBER DESCRIPTION PAGE</p> <p>10 1 Curriculum Vitae 22</p> <p>11 2 Amended Rule 26 Expert Report 56</p> <p>12 of Shawn Levy, Ph.D.</p> <p>13</p> <p>14 3 Materials and Data Considered 74</p> <p>15</p> <p>16 4 Amended Rule 26 Expert Report 100</p> <p>17 of Shawn Levy, Ph.D.</p> <p>18 5 Fletcher Article 160</p> <p>19 6 Mandarino Article 164</p> <p>20 7 Emi Article 194</p> <p>21 8 Harper Article 207</p> <p>22 9 Taher Article 234</p> <p>23 10 O'Brien 2020 Article 247</p> <p>24 11 Wentzensen Article 248</p> <p>25 12 O'Brien 2019 Article 257</p> <p>13 Chang Article 261</p> <p>14 Chang Article, Supplemental 262</p> <p>Table S4</p>
<p>Page 3</p> <p>1 APPEARANCES (Continued):</p> <p>2</p> <p>3 On behalf of Defendants Johnson & Johnson and</p> <p>4 Johnson & Johnson Consumer, Inc.:</p> <p>SKADDEN, ARPS, SLATE, MEAGHER & FLOM, LLP</p> <p>BY: JESSICA DAVIDSON (Remote)</p> <p>jessica.davidson@skadden.com</p> <p>BY: NOAH EPSTEIN (Remote)</p> <p>noah.epstein@skadden.com</p> <p>BY: ASHER TRANGLE (Remote)</p> <p>asher.trangle@skadden.com</p> <p>One Manhattan West</p> <p>New York, New York 10001</p> <p>(212) 735-3000</p> <p>On behalf of Personal Care Products Council:</p> <p>REILLY MCDEVITT & HENRICH</p> <p>BY: SUZANNE I. TURPIN (Remote)</p> <p>sturpin@rmh-law.com</p> <p>BY: KEVIN KOTCH (Remote)</p> <p>kkotch@rmh-law.com</p> <p>3 Executive Campus</p> <p>Suite 310</p> <p>Cherry Hill, New Jersey 08002</p> <p>(856) 317-7180</p> <p>ALSO PRESENT:</p> <p>PAULA BROWN (Remote)</p> <p>---</p>	<p>Page 5</p> <p>1 DEPOSITION EXHIBITS (Continued)</p> <p>2 NUMBER DESCRIPTION PAGE</p> <p>3 15 Linda Bondurant Plaintiff 278</p> <p>4 Profile Form</p> <p>5</p> <p>6 16 Oncology Genetic Test Report, 283</p> <p>7 dated 1/14/14</p> <p>8 17 Bhatia Article 293</p> <p>9 18 Das Article 295</p> <p>10 19 Brieger Article 302</p> <p>11 20 Hurwitz 2023 Article 306</p> <p>12 21 Gabriel Article 311</p> <p>13 22 Hurwitz 2023 Article 331</p> <p>14 23 Papanek Article 342</p> <p>15 24 Hurwitz 2022 Article 357</p> <p>16</p> <p>17</p> <p>18 QUESTIONS NOT ANSWERED</p> <p>19 PAGE LINE</p> <p>20 116 18</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>

<p style="text-align: right;">Page 6</p> <p>1 WEDNESDAY, MAY 8, 2024</p> <p>2 SAN DIEGO, CALIFORNIA</p> <p>3 9:11 A.M.</p> <p>4</p> <p>5 SHAWN LEVY, M.D.,</p> <p>6 after having been duly sworn, was examined</p> <p>7 and testified as follows:</p> <p>8 - - -</p> <p>9 EXAMINATION</p> <p>10 BY ATTORNEY DAVIDSON:</p> <p>11 Q. Good morning, Dr. Levy. Is it Levy</p> <p>12 or Levy?</p> <p>13 A. Levy.</p> <p>14 Q. Good morning, Dr. Levy.</p> <p>15 A. Good morning. 09:11</p> <p>16 Q. You've been deposed before in this</p> <p>17 litigation; right?</p> <p>18 A. I have.</p> <p>19 Q. Did you bring any materials with</p> <p>20 you today to your deposition? 09:11</p> <p>21 A. Yes.</p> <p>22 Q. What did you bring?</p> <p>23 A. The background materials and copies</p> <p>24 of the report and the materials that were</p> <p>25 used in the generation of the report, as 09:11</p>	<p style="text-align: right;">Page 8</p> <p>1 available electronically and many of</p> <p>2 them hard copy as well.</p> <p>3 BY ATTORNEY DAVIDSON:</p> <p>4 Q. When you say the materials that</p> <p>5 were provided, do you mean provided by 09:13</p> <p>6 Ms. O'Dell or Ms. Parfitt?</p> <p>7 A. Yes, that's correct.</p> <p>8 Q. Did Ms. Parfitt and Ms. O'Dell</p> <p>9 provide you with the scientific literature</p> <p>10 that you cite in your report? 09:13</p> <p>11 ATTORNEY O'DELL: Object to form.</p> <p>12 Let me just ask the question to make</p> <p>13 sure we're clear on the ground rules,</p> <p>14 Jessica. This is not a --</p> <p>15 ATTORNEY DAVIDSON: No -- 09:13</p> <p>16 ATTORNEY O'DELL: Let me finish.</p> <p>17 Just, again, just to make sure we're</p> <p>18 clear, this deposition is for purposes</p> <p>19 of any new materials in Dr. Levy's</p> <p>20 report since his 2018 report. So 09:13</p> <p>21 just, again, to set the expectation,</p> <p>22 that's what we're talking about here</p> <p>23 today, not a retread of all literature</p> <p>24 that he's reviewed at any point in the</p> <p>25 litigation. 09:14</p>
<p style="text-align: right;">Page 7</p> <p>1 well as the materials that were provided as</p> <p>2 part of this process, some of the other</p> <p>3 expert reports, et cetera.</p> <p>4 Q. What's the difference between</p> <p>5 background materials -- I'm just a little 09:12</p> <p>6 confused. First you said background</p> <p>7 materials, and then you said the</p> <p>8 materials --</p> <p>9 A. I'm sorry. The materials cited in</p> <p>10 the report, copies of those materials. 09:12</p> <p>11 Q. Did you bring anything other than</p> <p>12 materials cited in the report?</p> <p>13 A. No. I'd have to -- all the</p> <p>14 supporting -- when I say background and</p> <p>15 supporting literature, is the material cited 09:12</p> <p>16 in the report as well as the other materials</p> <p>17 provided, such as the testing records for</p> <p>18 some of the plaintiffs, some of the other</p> <p>19 expert witness reports that were also</p> <p>20 produced. 09:12</p> <p>21 ATTORNEY O'DELL: And we have, in</p> <p>22 response to the notice of deposition,</p> <p>23 invoices that were provided in the</p> <p>24 Dropbox. And those documents that</p> <p>25 were not objected to, we have 09:12</p>	<p style="text-align: right;">Page 9</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Dr. Levy, did plaintiff's counsel</p> <p>3 provide you with the scientific literature</p> <p>4 that you reviewed?</p> <p>5 A. No. 09:14</p> <p>6 ATTORNEY O'DELL: Object to the</p> <p>7 form.</p> <p>8 BY ATTORNEY DAVIDSON:</p> <p>9 Q. I'm sorry? I didn't hear your</p> <p>10 answer. 09:14</p> <p>11 A. I said: No.</p> <p>12 Q. So every scientific article cited</p> <p>13 in your report you found on your own?</p> <p>14 ATTORNEY O'DELL: Object to the</p> <p>15 form. 09:14</p> <p>16 THE WITNESS: For the new</p> <p>17 literature that was reviewed as part</p> <p>18 of this process that is contained in</p> <p>19 the peer-reviewed section, meaning</p> <p>20 materials that were not, say, private 09:14</p> <p>21 to a plaintiff, for example, testing</p> <p>22 records, et cetera, things that I</p> <p>23 wouldn't have access to, I obviously</p> <p>24 couldn't provide those.</p> <p>25 ///</p>

<p style="text-align: right;">Page 10</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Is it your testimony, sitting here</p> <p>3 today, that every scientific article cited</p> <p>4 in your materials and data considered list</p> <p>5 that we received, I think it was on 09:15</p> <p>6 Saturday, is something that you identified</p> <p>7 and found on your own?</p> <p>8 A. To answer that completely, I'd have</p> <p>9 to review the entire list to make that</p> <p>10 confirmation. 09:15</p> <p>11 Q. So is it possible that plaintiff's</p> <p>12 counsel provided you with some of the</p> <p>13 scientific literature cited in your</p> <p>14 materials and data considered list?</p> <p>15 A. Again, I'd have to ask you for a 09:15</p> <p>16 specific example.</p> <p>17 Q. Well, you said a minute ago that</p> <p>18 you had found it all.</p> <p>19 Are you changing that testimony?</p> <p>20 ATTORNEY O'DELL: Object to the 09:15</p> <p>21 form.</p> <p>22 THE WITNESS: I'm not changing.</p> <p>23 BY ATTORNEY DAVIDSON:</p> <p>24 Q. I'm sorry, sir?</p> <p>25 A. No, I'm not changing the testimony. 09:15</p>	<p style="text-align: right;">Page 12</p> <p>1 literature, as I referenced in the</p> <p>2 report that was discovered as part of</p> <p>3 the request made, that was scientific</p> <p>4 literature that I found. Your</p> <p>5 question was, was all of the 09:16</p> <p>6 literature cited in the report</p> <p>7 literature that I found in all of it,</p> <p>8 and my answer is I would need to</p> <p>9 specifically review that entire list</p> <p>10 to give you that answer to be 09:16</p> <p>11 encompassing of all.</p> <p>12 BY ATTORNEY DAVIDSON:</p> <p>13 Q. What is the difference between</p> <p>14 those two things?</p> <p>15 A. Because this was an amended report; 09:17</p> <p>16 so there's quite a bit of literature that</p> <p>17 was from earlier, from the earlier</p> <p>18 development of the report and other</p> <p>19 materials cited in the report, as I said.</p> <p>20 Some of it being testing materials and other 09:17</p> <p>21 things that are non-public. So I would</p> <p>22 ask --</p> <p>23 Q. Is everything that you --</p> <p>24 ATTORNEY O'DELL: I'm not sure</p> <p>25 he's finished. 09:17</p>
<p style="text-align: right;">Page 11</p> <p>1 You asked if every scientific piece of</p> <p>2 literature cited, and so --</p> <p>3 Q. A minute ago you said yes.</p> <p>4 ATTORNEY O'DELL: I'm sorry,</p> <p>5 Jessica. He was not finished with his 09:16</p> <p>6 answer.</p> <p>7 ATTORNEY DAVIDSON: You're</p> <p>8 interrupting me, Leigh.</p> <p>9 ATTORNEY O'DELL: No. You</p> <p>10 interrupted me. Let's just try to 09:16</p> <p>11 start better than normal. He was not</p> <p>12 finished with his answer. Dr. Levy --</p> <p>13 BY ATTORNEY DAVIDSON:</p> <p>14 Q. You testified a minute ago --</p> <p>15 (Parties speaking simultaneously. 09:16</p> <p>16 Record unattainable.)</p> <p>17 ATTORNEY O'DELL: Let him finish.</p> <p>18 ATTORNEY DAVIDSON: Please</p> <p>19 don't --</p> <p>20 ATTORNEY O'DELL: Don't stop his 09:16</p> <p>21 answer. You please finish your</p> <p>22 answer, Dr. Levy, and then you can ask</p> <p>23 a follow-up question after that.</p> <p>24 But you may finish.</p> <p>25 THE WITNESS: For the scientific 09:16</p>	<p style="text-align: right;">Page 13</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Is every new scientific article</p> <p>3 cited in your materials and data considered</p> <p>4 list something that you found on your own?</p> <p>5 A. Again, definition of a scientific 09:17</p> <p>6 article is?</p> <p>7 Q. Something published in a journal.</p> <p>8 A. Then I would say yes, I believe so.</p> <p>9 But without reviewing the entire list or a</p> <p>10 specific example of one -- certainly as we 09:17</p> <p>11 go through sections to highlight to you</p> <p>12 anything that was not something that I found</p> <p>13 on my own.</p> <p>14 Q. Let's just ask the question</p> <p>15 differently. 09:18</p> <p>16 Did plaintiff's counsel provide you</p> <p>17 with any scientific literature as you</p> <p>18 prepared your amended report?</p> <p>19 ATTORNEY O'DELL: Object to the</p> <p>20 form. 09:18</p> <p>21 THE WITNESS: Not that I recall.</p> <p>22 BY ATTORNEY DAVIDSON:</p> <p>23 Q. Okay. Have you reviewed any</p> <p>24 defense expert reports in this litigation?</p> <p>25 A. I have. 09:18</p>

<p style="text-align: right;">Page 14</p> <p>1 Q. I'm sorry?</p> <p>2 A. Yes, I have.</p> <p>3 Q. Which ones?</p> <p>4 A. The two that are most -- the few</p> <p>5 that are most recent, it would be from 09:18</p> <p>6 Dr. Longo, Dr. Wolf, Dr. Godleski.</p> <p>7 Q. Did you understand my question?</p> <p>8 A. Yes. And I --</p> <p>9 Q. What was my question -- I'm sorry,</p> <p>10 sir. 09:19</p> <p>11 A. You asked if I had reviewed other</p> <p>12 expert witness reports and who, and I had</p> <p>13 provided you some of the answers. And I was</p> <p>14 looking to see if I'm missing any.</p> <p>15 Q. Dr. Levy, I'm sorry. My question 09:19</p> <p>16 was: Have you reviewed any defense expert</p> <p>17 reports?</p> <p>18 A. Yes, I think -- and I answered</p> <p>19 Dr. Longo is one. Is that not --</p> <p>20 Q. That's a plaintiff. 09:19</p> <p>21 A. Oh, sorry. I'm sorry. Yes, thank</p> <p>22 you for the clarification. I apologize</p> <p>23 for -- let me -- I did --</p> <p>24 ATTORNEY O'DELL: If you need to</p> <p>25 see your materials considered list, 09:19</p>	<p style="text-align: right;">Page 16</p> <p>1 question.</p> <p>2 ATTORNEY O'DELL: Object to the</p> <p>3 form.</p> <p>4 ATTORNEY DAVIDSON: Thank you,</p> <p>5 Leigh. 09:20</p> <p>6 ATTORNEY O'DELL: You're welcome.</p> <p>7 BY ATTORNEY DAVIDSON:</p> <p>8 Q. Doctor, I'm not in the room with</p> <p>9 you today; so if you're looking at</p> <p>10 something, I can't know that. So I 09:20</p> <p>11 appreciate the courtesy of letting me know.</p> <p>12 A. No. As I said, I gave you the two</p> <p>13 that I recall.</p> <p>14 Q. And what do you have in front of</p> <p>15 you right now? Because it does look like 09:21</p> <p>16 you're looking at something.</p> <p>17 A. My computer.</p> <p>18 Q. You have a computer in front of you</p> <p>19 today?</p> <p>20 A. That's where the camera is, yes. 09:21</p> <p>21 Q. What's up at your computer?</p> <p>22 A. I opened up the defense experts</p> <p>23 folder that I have as part of the materials.</p> <p>24 Q. Okay. I had asked you if you could</p> <p>25 remember anything without looking, and you 09:21</p>
<p style="text-align: right;">Page 15</p> <p>1 Dr. Levy, we can provide that to you.</p> <p>2 THE WITNESS: I think I have that.</p> <p>3 The answer is still yes. It's a</p> <p>4 shorter list.</p> <p>5 BY ATTORNEY DAVIDSON: 09:20</p> <p>6 Q. Without looking at your materials</p> <p>7 considered list, do you recall reading any</p> <p>8 expert reports by defense experts in the</p> <p>9 MDL?</p> <p>10 A. Yes. 09:20</p> <p>11 Q. What do you recall?</p> <p>12 A. A report by Dr. Chodosh and a</p> <p>13 report by Dr. Boyd.</p> <p>14 Q. Is it your understanding that those</p> <p>15 were in this proceeding? 09:20</p> <p>16 ATTORNEY O'DELL: Do you mean the</p> <p>17 MDL proceeding? Jessica, when you say</p> <p>18 "this proceeding," are you referring</p> <p>19 to the MDL or New Jersey or what?</p> <p>20 ATTORNEY DAVIDSON: I'm asking the 09:20</p> <p>21 questions today.</p> <p>22 ATTORNEY O'DELL: It's unclear</p> <p>23 what the question is.</p> <p>24 ATTORNEY DAVIDSON: If it's</p> <p>25 unclear, you know how to object to a 09:20</p>	<p style="text-align: right;">Page 17</p> <p>1 said yes.</p> <p>2 But actually, you were looking at</p> <p>3 something?</p> <p>4 A. Yes. I had already had it open.</p> <p>5 Q. Okay. So when you said you could 09:21</p> <p>6 answer without looking, actually you were</p> <p>7 looking at something; correct?</p> <p>8 ATTORNEY O'DELL: Object. That</p> <p>9 misstates his testimony. Object to</p> <p>10 the form. 09:21</p> <p>11 BY ATTORNEY DAVIDSON:</p> <p>12 Q. Correct, sir?</p> <p>13 ATTORNEY O'DELL: Object to the</p> <p>14 form. It misstates his testimony.</p> <p>15 BY ATTORNEY DAVIDSON: 09:21</p> <p>16 Q. Correct, sir?</p> <p>17 A. No. Incorrect.</p> <p>18 Q. Why is it incorrect?</p> <p>19 A. As I already answered, I already</p> <p>20 had it open. 09:21</p> <p>21 Q. So you were looking at it; correct?</p> <p>22 A. I had looked at it.</p> <p>23 Q. My question was: Can you tell me</p> <p>24 what defense expert reports you reviewed</p> <p>25 without looking at it? And you said: Yes. 09:22</p>

<p style="text-align: right;">Page 18</p> <p>1 But, in fact, you were looking at 2 something; right? 3 ATTORNEY O'DELL: Object to the 4 form. 5 THE WITNESS: Again, I had 09:22 6 previously -- I had already opened it 7 prior to your question. 8 BY ATTORNEY DAVIDSON: 9 Q. I understand. 10 So your answer was inaccurate; 09:22 11 correct? 12 A. No, it was not. 13 ATTORNEY O'DELL: Object to the 14 form. 15 BY ATTORNEY DAVIDSON: 09:22 16 Q. I would appreciate the courtesy, if 17 you are looking at a document at this 18 deposition, to tell me. 19 Because, again, my question was: 20 Can you tell me what defense expert reports 09:22 21 you looked at without looking at anything? 22 And you said: Yes. 23 But, in fact, you were looking at 24 something. So please, going forward in this 25 deposition, if you are looking at something 09:22</p>	<p style="text-align: right;">Page 20</p> <p>1 Q. Who did you meet with? 2 A. Leigh and Jennifer who are here in 3 the room. 4 Q. When did you meet with them? 5 A. We met in person yesterday. 09:23 6 Q. For how long? 7 A. From approximately 9:30 a.m. until 8 4:15 p.m. There were a couple of hours of 9 breaks in there where I had some other 10 meetings. Two hours specifically. 09:23 11 Q. And did you meet with them any 12 other times by phone or Zoom to prepare? 13 A. We did. We met by Zoom -- we met 14 by Zoom two or three times for an hour to an 15 hour and a half each, roughly once a week 09:24 16 over the last couple of weeks. I have some 17 records on that, if it's helpful, to be 18 specific. 19 Q. Did they show you any documents you 20 haven't previously listed on your materials 09:24 21 considered? 22 ATTORNEY O'DELL: Object to the 23 form. 24 THE WITNESS: No, not that I'm 25 aware. 09:24</p>
<p style="text-align: right;">Page 19</p> <p>1 on your computer, please make that clear for 2 accuracy in your testimony. Thank you. 3 ATTORNEY O'DELL: Objection to the 4 narrative and it misstates his 5 testimony. 09:22 6 BY ATTORNEY DAVIDSON: 7 Q. Have you reviewed your January 29 8 deposition? 9 ATTORNEY O'DELL: 2019? January, 10 2019? 09:23 11 BY ATTORNEY DAVIDSON: 12 Q. January, 2019, deposition. 13 Did you review it preparing for 14 today? 15 A. I did. 09:23 16 Q. Is there anything you want to 17 change in your testimony? 18 A. No. Nothing. Nothing that I saw 19 during the review. 20 Q. Do you stand by everything you 09:23 21 said? 22 A. Yes. 23 Q. Did you meet with any lawyers to 24 prepare for today? 25 A. I did. 09:23</p>	<p style="text-align: right;">Page 21</p> <p>1 BY ATTORNEY DAVIDSON: 2 Q. Do you have any notes that are not 3 contained in your report? 4 A. I have made some notes in terms of 5 for our discussions yesterday, just in 09:24 6 things we discussed, you know, taking notes 7 for myself in terms of things to review. 8 ATTORNEY DAVIDSON: Okay. Leigh, 9 those should be produced to us. 10 ATTORNEY O'DELL: I'll review them 09:24 11 and -- for purposes of determining if 12 they capture any of the attorney work 13 product communications. If they do, 14 we'll provide that responsive 15 information that's not privileged. 09:25 16 ATTORNEY DAVIDSON: I'm sure you 17 know the rule, which is that experts 18 have to provide notes. 19 ATTORNEY O'DELL: Experts do not 20 have to provide notes of what their 09:25 21 counsel have said. So I do know the 22 rules. We'll comply with those. 23 BY ATTORNEY DAVIDSON: 24 Q. I'd like to mark as Exhibit 1 your 25 amended -- Exhibit A to your amended expert 09:25</p>

<p style="text-align: right;">Page 22</p> <p>1 report, which is your CV. 2 (Exhibit Number 1 was marked for 3 identification.) 4 ATTORNEY O'DELL: Jessica, you'll 5 be putting all the exhibits in the 09:25 6 chat? 7 ATTORNEY DAVIDSON: Yes, but it 8 sounds like Dr. Levy has his computer 9 in front of him; so I'm guessing he 10 has his CV in front of him. But yes, 09:26 11 we'll put it in the chat. 12 BY ATTORNEY DAVIDSON: 13 Q. Is your CV a complete and accurate 14 accounting of your professional work and 15 publications? 09:26 16 A. It is. 17 Q. Have you prepared it yourself? 18 A. I'm sorry? 19 Q. Did you prepare it yourself? 20 A. Did I prepare it myself? 09:26 21 Q. Yes. 22 A. Yes. 23 Q. Are there any changes or updates 24 you want to make to it? 25 A. No. 09:26</p>	<p style="text-align: right;">Page 24</p> <p>1 form. Are you talking about -- you 2 said his job at HudsonAlpha -- 3 BY ATTORNEY DAVIDSON: 4 Q. Your job at Element Biosciences 5 does not focus on talc; correct? 09:27 6 ATTORNEY O'DELL: Object to the 7 form. 8 THE WITNESS: Not specifically 9 talc, no. 10 BY ATTORNEY DAVIDSON: 09:27 11 Q. And your job at Element Biosciences 12 does not focus on asbestos; correct? 13 ATTORNEY O'DELL: Object to the 14 form. 15 THE WITNESS: Not specifically on 09:28 16 asbestos. 17 BY ATTORNEY DAVIDSON: 18 Q. And the same is true of your job at 19 HudsonAlpha? 20 A. That's correct. 09:28 21 Q. Your CV states that you're an 22 adjunct professor; is that correct? 23 A. That is correct. 24 Q. Are you aware that your name does 25 not appear on any faculty list at any branch 09:28</p>
<p style="text-align: right;">Page 23</p> <p>1 Q. You started a new job in February 2 of 2022 at Element Biosciences? 3 A. That's correct. 4 Q. When you started your employment 5 there, did you disclose your work as a talc 09:26 6 expert? 7 A. Not at that time, but it has been 8 disclosed since. At that time I had not 9 been in touch with anything after the 2019 10 deposition. 09:27 11 ATTORNEY O'DELL: Dr. Levy, I'm 12 going to stop you. Don't disclose any 13 communications you've had with 14 counsel, but you're free to -- 15 THE WITNESS: It has been 09:27 16 disclosed since, when there was other 17 activity initiated relative to what 18 we're talking about today. 19 BY ATTORNEY DAVIDSON: 20 Q. Your job at HudsonAlpha does not 09:27 21 focus on talc; correct? 22 A. That's correct. 23 Q. It does not focus on asbestos; 24 correct? 25 ATTORNEY O'DELL: Object to the 09:27</p>	<p style="text-align: right;">Page 25</p> <p>1 of the University of Alabama under the 2 department of epidemiology, department of 3 genetics, or the department of biological 4 sciences? 5 A. No, I wasn't aware of that. 09:28 6 Q. Are you surprised to hear that? 7 A. Not entirely. Most of the time, 8 any faculty lists are primary faculty or 9 secondary faculty. Adjunct are often not 10 included on those lists. 09:28 11 Q. When's the last time you taught a 12 course at the University of Alabama? 13 A. I'd be happy to tell you 14 specifically. There's -- but I would need 15 to look at some of my notes in terms of the 09:29 16 presentation. There was a DNA sequencing 17 course as part of the department of 18 epidemiological that I taught annually. I 19 think the last time I taught that -- I, 20 again, would need to verify -- was probably 09:29 21 2020 or 2021. It was prior to relocating to 22 San Diego. That's an approximate time. Now 23 that I think about it, given the timing of 24 the pandemic, it was probably 2020. 25 Q. When did you move to San Diego? 09:29</p>

<p style="text-align: right;">Page 26</p> <p>1 2020?</p> <p>2 A. No. In June of 2022.</p> <p>3 Q. So since 2020, you haven't actually</p> <p>4 taught a course at University of Alabama?</p> <p>5 A. That's correct. 09:29</p> <p>6 Q. Have you been paid?</p> <p>7 A. I have not. My appointment at UAB</p> <p>8 was never a paid appointment.</p> <p>9 Q. So what is the -- what does your</p> <p>10 current -- what are your current duties at 09:30</p> <p>11 the University of Alabama?</p> <p>12 A. I have no direct specific</p> <p>13 responsibilities. What opportunity I have</p> <p>14 is I continue to have -- to be able to</p> <p>15 access their libraries is one example. I 09:30</p> <p>16 continue to be available to their other</p> <p>17 researchers. The cancer center is the</p> <p>18 center that I interact most with. I still</p> <p>19 have some relationships and collaborations</p> <p>20 there. I have an email address. I have no 09:30</p> <p>21 specific direct day-to-day responsibilities</p> <p>22 at that university.</p> <p>23 Q. What collaborations do you have</p> <p>24 there currently?</p> <p>25 A. Oh, a couple of scientific 09:30</p>	<p style="text-align: right;">Page 28</p> <p>1 anything with Dr. Korf, but I have</p> <p>2 been actively in touch with Dr. Brown</p> <p>3 in regards to the multiple myeloma</p> <p>4 project that I mentioned.</p> <p>5 BY ATTORNEY DAVIDSON: 09:32</p> <p>6 Q. But that's not for the University</p> <p>7 of Alabama; correct?</p> <p>8 A. I think it depends on how you</p> <p>9 define "for."</p> <p>10 Q. University of Alabama is not paying 09:32</p> <p>11 you for that; correct?</p> <p>12 A. No.</p> <p>13 ATTORNEY O'DELL: Let him finish,</p> <p>14 please.</p> <p>15 BY ATTORNEY DAVIDSON: 09:32</p> <p>16 Q. The last time you --</p> <p>17 (Parties speaking simultaneously.</p> <p>18 Record unattainable.)</p> <p>19 ATTORNEY O'DELL: You may finish</p> <p>20 your answer when you're ready. 09:32</p> <p>21 BY ATTORNEY DAVIDSON:</p> <p>22 Q. The last time you were paid by the</p> <p>23 University of Alabama was sometime before</p> <p>24 2020?</p> <p>25 ATTORNEY O'DELL: Object to the 09:32</p>
<p style="text-align: right;">Page 27</p> <p>1 collaborations.</p> <p>2 Q. What does that mean?</p> <p>3 A. Meaning I can get access to samples</p> <p>4 or other projects there.</p> <p>5 One investigator that I work 09:31</p> <p>6 closely with is a woman named Dr. Beth</p> <p>7 Brown. She studies multiple myeloma. She</p> <p>8 and I have been collaborators. I'd have to</p> <p>9 look at my literature list for sure. I want</p> <p>10 to say we have two or three publications 09:31</p> <p>11 together over the years.</p> <p>12 Bruce Korf is another colleague.</p> <p>13 He and I have worked closely together on</p> <p>14 different clinical initiatives, specifically</p> <p>15 in the state of Alabama. 09:31</p> <p>16 Q. When you say collaborations, you're</p> <p>17 not currently doing any work for the</p> <p>18 University of Alabama; correct?</p> <p>19 ATTORNEY O'DELL: Object to the</p> <p>20 form. 09:31</p> <p>21 THE WITNESS: When I say</p> <p>22 collaborations, I mean a -- work or a</p> <p>23 project that we are both</p> <p>24 intellectually contributing to. As of</p> <p>25 today, I am not actively working on 09:31</p>	<p style="text-align: right;">Page 29</p> <p>1 form.</p> <p>2 THE WITNESS: To be clear, I have</p> <p>3 never been paid by the University of</p> <p>4 Alabama.</p> <p>5 BY ATTORNEY DAVIDSON: 09:32</p> <p>6 Q. So when you taught a course there,</p> <p>7 it was for free?</p> <p>8 A. Correct.</p> <p>9 Q. I see. Okay.</p> <p>10 A. The adjunct appointment was 09:32</p> <p>11 primarily to provide mentorship and</p> <p>12 oversight as part of the graduate program.</p> <p>13 When I was a faculty member at the</p> <p>14 HudsonAlpha Institute For Biotechnology,</p> <p>15 they have a formal relationship with 09:32</p> <p>16 University of Alabama Huntsville and</p> <p>17 University of Alabama Birmingham. By having</p> <p>18 an adjunct appointment at those two</p> <p>19 institutions, we were able to participate in</p> <p>20 the graduate programs. 09:33</p> <p>21 We would often teach courses or</p> <p>22 part of courses and then mentor graduate</p> <p>23 students. There was a number of graduate</p> <p>24 students. Three, I think, to be exact.</p> <p>25 Although, again, I would have to refresh my 09:33</p>

<p style="text-align: right;">Page 30</p> <p>1 memory where I was participating on their 2 thesis committee at UAB. It was -- there 3 was not a formal employment relationship 4 from a -- that you may be referring to. 5 Q. If I were to call the University of 09:33 6 Alabama and ask: Is Dr. Shawn Levy employed 7 as an adjunct faculty member at your 8 university, would they say yes or no? 9 A. If you ask if I was employed, they 10 would certainly say no. 09:33 11 Q. If I were to call the University of 12 Alabama and ask: Is Dr. Shawn Levy 13 currently appointed as an adjunct faculty 14 member at your university, would they say 15 yes or no? 09:34 16 A. They would say yes. 17 Q. Are you sure? 18 A. Pretty sure because I can tell you 19 as of in the -- certainly in the last 14 to 20 21 days, I can log in with my University of 09:34 21 Alabama ID and review my faculty profile 22 which says my adjunct appointment. 23 Q. Doctor, your current CV lists 221 24 peer-reviewed publications; is that correct? 25 A. It currently lists -- yes, that is 09:34</p>	<p style="text-align: right;">Page 32</p> <p>1 certainly -- unethical? I'm not sure 2 I would agree with. 3 I would provide one point of 4 clarification that some of the 5 publications, particularly the ones 09:36 6 that are involved in a consortia 7 basis, the author list, rather than 8 listing all individuals, will 9 occasionally -- in some examples, will 10 list the name of a specific consortia. 09:36 11 BY ATTORNEY DAVIDSON: 12 Q. Do you know how many articles there 13 are listed in your 221 peer-reviewed 14 publications where you're not actually 15 listed either as an author or a co-author? 09:36 16 ATTORNEY O'DELL: Object to the 17 form. 18 THE WITNESS: My understanding -- 19 my testimony would be zero. As I 20 said, none that I'm aware of. 09:36 21 BY ATTORNEY DAVIDSON: 22 Q. Let's look at number 141. 23 A. Number 141? 24 Q. Uh-huh. 25 A. I have it, yeah. 09:37</p>
<p style="text-align: right;">Page 31</p> <p>1 correct. As of November, 2023. 2 Q. And you are either an author or 3 co-author of each of these publications? 4 A. That is correct. 5 Q. Is it customary in your field to 09:35 6 list yourself as a co-author on your CV when 7 you're not listed as a co-author in the 8 actual publication? 9 A. Could you provide an example of 10 one? 09:35 11 Q. I'm asking you: Is it customary in 12 your field to list yourself as a co-author 13 in your CV when you're not listed as a 14 co-author in the actual publication? 15 ATTORNEY O'DELL: Object to the 09:35 16 form. 17 THE WITNESS: No, not customary. 18 BY ATTORNEY DAVIDSON: 19 Q. Do you believe it would be 20 unethical to claim authorship of an article 09:35 21 when you're not actually listed as a 22 co-author? 23 ATTORNEY O'DELL: Object to the 24 form. 25 THE WITNESS: I think it -- 09:35</p>	<p style="text-align: right;">Page 33</p> <p>1 Q. This lists 23 authors. 2 Do you see your name there? 3 A. I do not. 4 Q. Let's look at 142. 5 ATTORNEY O'DELL: If you need to 09:37 6 see the actual paper, Dr. Levy, I'm 7 sure Jessica can provide it to you or 8 you can pull it up. 9 BY ATTORNEY DAVIDSON: 10 Q. 142. 09:37 11 A. I see it. 12 Q. Let's look at 142. 13 There's eight authors listed there; 14 right? 15 A. Correct. 09:37 16 Q. Do you see your name? 17 A. I do not. 18 Q. Let's look at 167. 19 A. So 167 is an example, as I said, of 20 a consortia. 09:37 21 Do you see the notation of members 22 of the Undiagnosed Disease Network? There 23 will be a number of publications listing 24 that as an author. I was a member of that 25 consortia. 09:38</p>

<p style="text-align: right;">Page 34</p> <p>1 Q. What work did you do as a member of 2 that consortia on this?</p> <p>3 A. I was a co-investigator on the 4 Undiagnosed Disease Network grant.</p> <p>5 Q. Did you actually write any part of 09:38 6 this article?</p> <p>7 A. I would have to look. Did I write 8 any part of this article? I would have to 9 look closely at the article. But given my 10 role in that particular grant, the most 09:38 11 likely contribution was in the method 12 sections and some of the interpretation of 13 the genetic testing.</p> <p>14 Q. Are you able to say here today how 15 many of the articles out of these 221 you 09:38 16 actually contributed to the writing of?</p> <p>17 ATTORNEY O'DELL: Object to the 18 form.</p> <p>19 BY ATTORNEY DAVIDSON:</p> <p>20 Q. As a co-author or author? 09:39 21 ATTORNEY O'DELL: Object to the 22 form.</p> <p>23 THE WITNESS: They're represented 24 in the CV as that participation. 25 BY ATTORNEY DAVIDSON: 09:39</p>	<p style="text-align: right;">Page 36</p> <p>1 ATTORNEY O'DELL: Object to the 2 form.</p> <p>3 THE WITNESS: Yes.</p> <p>4 BY ATTORNEY DAVIDSON:</p> <p>5 Q. Okay. How about 154? Papanek, 09:40 6 O'Dell. I'm pretty sure it's a different 7 O'Dell. Manga, Giannone, Klingeman, 8 Hettich, Brown, and Guss. 9 Does that say Levy anywhere?</p> <p>10 ATTORNEY O'DELL: Object to the 09:40 11 form.</p> <p>12 THE WITNESS: It does not.</p> <p>13 BY ATTORNEY DAVIDSON:</p> <p>14 Q. So you are not listed as a 15 co-author or author on 154 either; correct? 09:40</p> <p>16 ATTORNEY O'DELL: Object to the 17 form.</p> <p>18 THE WITNESS: Again, I'd have to 19 review the paper.</p> <p>20 BY ATTORNEY DAVIDSON: 09:41 21 Q. What's the RNA Communication 22 Consortium?</p> <p>23 A. So that consortium was a -- I'm 24 trying to think. How many? Five or six 25 centers that were studying RNA biology under 09:41</p>
<p style="text-align: right;">Page 35</p> <p>1 Q. I'm sorry?</p> <p>2 A. The reason they're on the CV was 3 due to that contribution as part of that -- 4 as being a co-author or author on the paper.</p> <p>5 Q. But we just -- I pointed you to two 09:39 6 where you're not even listed as a member of 7 a consortium; right?</p> <p>8 ATTORNEY O'DELL: Object to the 9 form.</p> <p>10 THE WITNESS: As I said, I'd have 09:39 11 to review those.</p> <p>12 BY ATTORNEY DAVIDSON:</p> <p>13 Q. Okay. Do you know how many members 14 there are of the Undiagnosed Diseases 15 Network? 09:39</p> <p>16 A. Yes, it's substantial.</p> <p>17 Q. How many?</p> <p>18 A. I'm not sure. It's been a number 19 of years since participating in that, but I 20 would guess probably something in the range 09:40 21 of a hundred.</p> <p>22 Q. Do you think all hundred members of 23 the non-diagnosed -- Undiagnosed Diseases 24 Network are authors or co-authors of this 25 paper? 09:40</p>	<p style="text-align: right;">Page 37</p> <p>1 a fairly wide variety of conditions.</p> <p>2 Q. How many members in that 3 consortium?</p> <p>4 A. Again, I'd have to -- I would have 5 to review, but I would estimate 30 or so. 09:41 6 Again, I would have to review.</p> <p>7 Q. Is it your testimony that every 8 single member of that consortium was an 9 author or co-author of item 169 on your CV?</p> <p>10 ATTORNEY O'DELL: I'm sorry. Did 09:41 11 you mean 169 or 154? I thought that 12 was what you were asking about.</p> <p>13 ATTORNEY DAVIDSON: I meant 169.</p> <p>14 ATTORNEY O'DELL: So that's 15 different than what you were just 09:42 16 asking about.</p> <p>17 ATTORNEY DAVIDSON: We're done 18 with 154.</p> <p>19 ATTORNEY O'DELL: All right. 20 We're on 169. 09:42</p> <p>21 BY ATTORNEY DAVIDSON:</p> <p>22 Q. Is it your testimony that every 23 member of the RNACC was an author or 24 co-author of item 169?</p> <p>25 A. To the best of my knowledge, 09:42</p>

<p style="text-align: right;">Page 38</p> <p>1 particularly that publication since it was 2 describing the consortia. 3 Q. Can you tell me today what you 4 specifically contributed to this paper? 5 ATTORNEY O'DELL: Dr. Levy, if you 09:42 6 need to pull up the paper and review 7 it in order to describe your 8 contributions, you're welcome to do 9 that. If you don't, of course, you 10 may give your answer. 09:42 11 BY ATTORNEY DAVIDSON: 12 Q. I'm asking you, if you can 13 remember, sitting here today -- 14 ATTORNEY O'DELL: To be clear -- 15 BY ATTORNEY DAVIDSON: 09:42 16 Q. When Leigh questions you, you're 17 welcome to pull up the paper. I'm asking 18 you if you can recall any contribution you 19 made to the paper. 20 ATTORNEY O'DELL: If that's the 09:42 21 question, if he recalls, he's welcome 22 to pull up the paper to refresh his 23 recollection if he needs to do that. 24 If he doesn't, that's fine. 25 THE WITNESS: So my recollection, 09:43</p>	<p style="text-align: right;">Page 40</p> <p>1 ATTORNEY O'DELL: Object to the 2 form. 3 THE WITNESS: Not necessarily. I 4 think it would depend on the 5 circumstances. 09:44 6 BY ATTORNEY DAVIDSON: 7 Q. If a graduate student at the 8 University of Alabama fabricated authorship 9 of articles on their CV, would they be 10 subject to disciplinary action? 09:44 11 ATTORNEY O'DELL: Objection. 12 Incomplete hypothetical, misstates 13 prior testimony. 14 THE WITNESS: How would you define 15 "fabricates"? You mean an article 09:44 16 being listed incorrectly but an 17 otherwise accurate author list? Or 18 somebody representing themselves as an 19 author when they were not? 20 BY ATTORNEY DAVIDSON: 09:44 21 Q. Someone representing on their CV 22 that they're an author of publications, 23 which they are not. 24 A. Again, it would depend on -- I 25 think it would depend on the circumstances. 09:45</p>
<p style="text-align: right;">Page 39</p> <p>1 in looking at the timing of this 2 paper, is my laboratory was 3 participating in this as a 4 methodological and technology provider 5 in terms of methods for sequencing 09:43 6 extracellular RNAs from extracellular 7 vesicles. This was an offshoot from 8 some of the work that began earlier at 9 Vanderbilt University, where I believe 10 there was another publication on the 09:43 11 CV discussing urine microvesicles that 12 began in my work there. 13 BY ATTORNEY DAVIDSON: 14 Q. What did you, Dr. Levy, contribute 15 to this actual paper? 09:43 16 A. Commentary around the 17 methodological details and some of the goals 18 of the consortia. I would have to review 19 the paper in more detail to provide you a 20 more precise answer. 09:43 21 Q. If you were interviewing an 22 employee who listed articles on his or her 23 CV in which he or she was not an author or 24 co-author, would that disqualify that 25 person, in your view, from employment? 09:44</p>	<p style="text-align: right;">Page 41</p> <p>1 Q. Do you know what the University of 2 Alabama Birmingham authorship policy states? 3 A. I've not reviewed it, no. 4 ATTORNEY O'DELL: Excuse me, 5 Jessica. While you're looking at your 09:45 6 notes, Lisa, Paula Brown is waiting in 7 the waiting room. Would you mind 8 letting her in, please. 9 BY ATTORNEY DAVIDSON: 10 Q. Is there a difference between 09:45 11 authoring a paper and being acknowledged in 12 a paper? 13 A. Yes. 14 Q. Have you ever authored any 15 publications concerning ovarian cancer? 09:46 16 A. I'd have to review the list. But 17 none specifically on ovarian cancer that 18 come to mind. 19 Q. Do you recall authoring any papers 20 regarding talc or asbestos? 09:46 21 A. No, I have not authored papers 22 regarding talc or asbestos. 23 Q. Are you currently working on any 24 papers regarding talc, asbestos, or ovarian 25 cancer? 09:46</p>

<p style="text-align: right;">Page 42</p> <p>1 A. Not currently.</p> <p>2 Q. Have you spoken in any public</p> <p>3 forums about talc or ovarian cancer since</p> <p>4 2019?</p> <p>5 A. I have not. 09:46</p> <p>6 Q. Have you made any public statements</p> <p>7 concerning talc or ovarian cancer or written</p> <p>8 anything publicly about talc or ovarian</p> <p>9 cancer since 2019?</p> <p>10 A. I have not. 09:46</p> <p>11 Q. Are you currently, or have you been</p> <p>12 in the last four years, retained as an</p> <p>13 expert in any other litigation?</p> <p>14 A. No.</p> <p>15 Q. Have you ever reached out to any 09:47</p> <p>16 health organization to express your concerns</p> <p>17 about talc and ovarian cancer?</p> <p>18 A. I have not reached out, no.</p> <p>19 Q. Are you offering the opinion in</p> <p>20 this litigation that talc causes ovarian 09:47</p> <p>21 cancer?</p> <p>22 A. That wasn't what I was requested to</p> <p>23 provide an opinion on.</p> <p>24 Q. Is the answer to my question "no"</p> <p>25 then? 09:47</p>	<p style="text-align: right;">Page 44</p> <p>1 would defer to some of the other reports</p> <p>2 that were specifically developed to make</p> <p>3 that assessment. On my own review of those</p> <p>4 reports, I'm supportive of their</p> <p>5 conclusions. 09:48</p> <p>6 Q. What do you mean by you're</p> <p>7 supportive of their conclusions?</p> <p>8 A. Meaning that I found the reports to</p> <p>9 be thorough and grounded in good scientific</p> <p>10 methodology to develop that conclusion. 09:48</p> <p>11 Q. So you are offering an opinion on</p> <p>12 the other experts' reports?</p> <p>13 ATTORNEY O'DELL: Objection to the</p> <p>14 form.</p> <p>15 THE WITNESS: No. I said that I 09:49</p> <p>16 found their reports to be compelling,</p> <p>17 but again --</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. Whose reports are those?</p> <p>20 ATTORNEY O'DELL: Excuse me. Let 09:49</p> <p>21 him finish, please.</p> <p>22 THE WITNESS: I found the reports</p> <p>23 to be compelling in terms of the</p> <p>24 materials and the way they were</p> <p>25 presented. I have not taken the time 09:49</p>
<p style="text-align: right;">Page 43</p> <p>1 ATTORNEY O'DELL: Object to the</p> <p>2 form. He gave you his answer to the</p> <p>3 question.</p> <p>4 THE WITNESS: I wasn't asked to</p> <p>5 provide an opinion on any causation. 09:47</p> <p>6 BY ATTORNEY DAVIDSON:</p> <p>7 Q. I understand.</p> <p>8 Does that mean you're not offering</p> <p>9 the opinion that talc causes ovarian cancer?</p> <p>10 A. No. I'm answering your question, 09:47</p> <p>11 which is I was not asked to offer an opinion</p> <p>12 on causation. So, therefore, to offer such</p> <p>13 an opinion to give you a yes-or-no answer</p> <p>14 would be a different -- it's certainly a</p> <p>15 different exercise than what I was asked to 09:47</p> <p>16 do.</p> <p>17 Q. There were a lot of negatives in</p> <p>18 that sentence.</p> <p>19 Do I understand your testimony to</p> <p>20 be that you will not come to court and say 09:48</p> <p>21 that talc causes ovarian cancer?</p> <p>22 A. That I will not say talc causes</p> <p>23 ovarian cancer?</p> <p>24 Q. Yes.</p> <p>25 A. I would only be able to offer -- I 09:48</p>	<p style="text-align: right;">Page 45</p> <p>1 to delve into those reports in an</p> <p>2 extensive enough manner to say that I</p> <p>3 concur wholeheartedly with all of the</p> <p>4 conclusions. But I found them to be</p> <p>5 well supported by reference materials 09:49</p> <p>6 and drawing reasonable conclusions</p> <p>7 from those materials. But I have not</p> <p>8 yet had the opportunity to review all</p> <p>9 of them.</p> <p>10 BY ATTORNEY DAVIDSON: 09:49</p> <p>11 Q. Which reports are you talking about</p> <p>12 that you found so compelling?</p> <p>13 A. Dr. Wolf's report.</p> <p>14 Q. Any others?</p> <p>15 A. I've not reviewed others on 09:49</p> <p>16 causation. If you're asking: Did I find</p> <p>17 any other plaintiff expert reports</p> <p>18 compelling? Is that your question?</p> <p>19 Q. Sure.</p> <p>20 A. I also found Dr. Godleski's report 09:50</p> <p>21 also quite interesting, primarily around the</p> <p>22 findings of fibrous material in the</p> <p>23 pathology slides.</p> <p>24 Q. You agree as a scientist,</p> <p>25 it's important to look at the totality of 09:50</p>

<p style="text-align: right;">Page 46</p> <p>1 the scientific evidence on a topic; right?</p> <p>2 A. I do.</p> <p>3 Q. And you would agree it's important</p> <p>4 as a scientist not to just look at one-sided</p> <p>5 scientific evidence; right? 09:50</p> <p>6 A. When available, yes.</p> <p>7 Q. So did you ask plaintiff's counsel</p> <p>8 to provide you with the defense reports that</p> <p>9 respond to Dr. Wolf and Dr. Godleski?</p> <p>10 ATTORNEY O'DELL: Object to the 09:50</p> <p>11 form.</p> <p>12 THE WITNESS: I did not</p> <p>13 specifically ask that question.</p> <p>14 BY ATTORNEY DAVIDSON:</p> <p>15 Q. Have you reviewed any defense 09:50</p> <p>16 expert reports responding to any of</p> <p>17 plaintiff's expert reports throughout the</p> <p>18 course of this MDL regarding general</p> <p>19 causation?</p> <p>20 ATTORNEY O'DELL: Object to the 09:51</p> <p>21 form. As you know, they're not</p> <p>22 defense expert reports --</p> <p>23 ATTORNEY DAVIDSON: Leigh, you are</p> <p>24 not testifying in this case.</p> <p>25 ATTORNEY O'DELL: Don't interrupt 09:51</p>	<p style="text-align: right;">Page 48</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Do you know how many defense</p> <p>3 epidemiology expert reports have been</p> <p>4 submitted in the MDL proceeding?</p> <p>5 A. I do not. 09:52</p> <p>6 Q. Have you had the opportunity to</p> <p>7 look at the National Cancer Institute PDQ on</p> <p>8 ovarian cancer since your last deposition?</p> <p>9 A. The PDQ. I'm not -- that doesn't</p> <p>10 sound familiar. Is there -- could that be 09:52</p> <p>11 provided in the chat, and I can give you a</p> <p>12 better answer if I can take a look at it?</p> <p>13 Q. Do you recall being asked about the</p> <p>14 NCI PDQ at your last deposition?</p> <p>15 A. Sorry. What is PDQ? 09:52</p> <p>16 Q. Have you heard of the National</p> <p>17 Cancer Institute PDQ?</p> <p>18 A. Again, I'd ask what -- I don't</p> <p>19 recall what PDQ is.</p> <p>20 Q. You're not familiar with that 09:53</p> <p>21 document?</p> <p>22 A. No.</p> <p>23 ATTORNEY O'DELL: He's requested</p> <p>24 to see the document you're asking him</p> <p>25 about, Jessica. Are you refusing to 09:53</p>
<p style="text-align: right;">Page 47</p> <p>1 me. I'm not. Exactly. I'm lodging</p> <p>2 an objection.</p> <p>3 ATTORNEY DAVIDSON: That's not an</p> <p>4 objection, Leigh.</p> <p>5 ATTORNEY O'DELL: It is an 09:51</p> <p>6 objection.</p> <p>7 BY ATTORNEY DAVIDSON:</p> <p>8 Q. Dr. Levy, I'm going to ask the</p> <p>9 question again.</p> <p>10 Throughout the course of this MDL 09:51</p> <p>11 proceeding, have you reviewed any defense</p> <p>12 expert reports related to the question of</p> <p>13 general causation?</p> <p>14 ATTORNEY O'DELL: Object to the</p> <p>15 form. 09:51</p> <p>16 THE WITNESS: We discussed earlier</p> <p>17 which expert reports you had asked</p> <p>18 that I had reviewed. So outside of</p> <p>19 those -- and, again, I would need to</p> <p>20 look at them again to recall if they 09:51</p> <p>21 were specifically about causation.</p> <p>22 Again, I don't recall if they were.</p> <p>23 But outside of the ones we earlier</p> <p>24 discussed, no, I have not.</p> <p>25 ///</p>	<p style="text-align: right;">Page 49</p> <p>1 provide it to him to review?</p> <p>2 ATTORNEY DAVIDSON: Leigh, let me</p> <p>3 take the deposition.</p> <p>4 ATTORNEY O'DELL: Answer my</p> <p>5 question. 09:53</p> <p>6 ATTORNEY DAVIDSON: And when you</p> <p>7 have a chance to question him, you can</p> <p>8 show him whatever documents you want.</p> <p>9 ATTORNEY O'DELL: I sure will, but</p> <p>10 a deposition like this is not -- you 09:53</p> <p>11 cannot ask questions without providing</p> <p>12 any context or documents. It's unfair</p> <p>13 to the witness, as you know. He asked</p> <p>14 to see it, and you refused to provide</p> <p>15 it to him. 09:53</p> <p>16 ATTORNEY DAVIDSON: Okay. Thank</p> <p>17 you, Leigh.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. Are you familiar that NCI puts out</p> <p>20 a document called the NCI PDQ or not? 09:53</p> <p>21 That's all I'm asking.</p> <p>22 ATTORNEY O'DELL: And if you need</p> <p>23 to see it to refresh your</p> <p>24 recollection, Dr. Levy, I'm sure</p> <p>25 counsel will comply with your request. 09:54</p>

<p style="text-align: right;">Page 50</p> <p>1 THE WITNESS: As I said, I was 2 just asking for either a reference to 3 the document or a definition of what 4 PDQ is. My answer is perhaps, without 5 looking at it in more detail. 09:54 6 As I'm sure you're aware, the NCI 7 produces a tremendous amount of 8 educational information in a wide 9 variety of formats, both for their 10 funded investigators as well as lay 09:54 11 audiences. So I would need to see 12 what you're referring to. 13 BY ATTORNEY DAVIDSON: 14 Q. In preparation for this deposition, 15 did you do any research into NCI, American 09:54 16 Cancer Institute, CDC, or any major United 17 States public health organization and their 18 views on talc and ovarian cancer? 19 ATTORNEY O'DELL: Object to the 20 form. Vague. 09:54 21 THE WITNESS: I performed as broad 22 a search in the scientific literature. 23 In general, websites for associations 24 between talc and a variety of 25 phenotypes, including cancer. So I am 09:55</p>	<p style="text-align: right;">Page 52</p> <p>1 ATTORNEY O'DELL: Object to the 2 form. 3 THE WITNESS: No. My testimony 4 was that I did a broad review of both 5 scientific literature and searches, 09:56 6 and in doing so, recall seeing 7 materials from some or all of those 8 organizations. But I can't tell you 9 specifically which page or other 10 material if it wasn't cited in the 09:56 11 report. 12 BY ATTORNEY DAVIDSON: 13 Q. My question is different. 14 My question is: Do you know 15 whether the National Cancer Institute, the 09:56 16 American Cancer Society, the CDC, ACOG, or 17 SGO has made any statement about the 18 allegation that perineal talc use causes 19 ovarian cancer? 20 ATTORNEY O'DELL: Object to the 09:56 21 form. Compound. 22 THE WITNESS: No, not that I'm 23 aware. But as I said, I don't know of 24 any statements from those 25 organizations on any causative aspects 09:57</p>
<p style="text-align: right;">Page 51</p> <p>1 sure that I have -- that I did review 2 materials from some or all of those 3 organizations you've mentioned. 4 BY ATTORNEY DAVIDSON: 5 Q. Do you know what the positions are 09:55 6 of the National Cancer Institute, the CDC, 7 the American Cancer Society, the Society of 8 Gynecologic Oncology, or ACOG with respect 9 to the allegation that perineal talc causes 10 ovarian cancer? 09:55 11 ATTORNEY O'DELL: Object to the 12 form. Vague and compound. 13 THE WITNESS: Am I aware of each 14 one of those individually? And 15 specifically? 09:55 16 BY ATTORNEY DAVIDSON: 17 Q. Any of them. 18 A. I don't recall finding a specific 19 statement regarding causation on any of 20 those sites. 09:56 21 Q. Okay. 22 A. To any cause of ovarian cancer. 23 Q. But it's your testimony that you 24 checked the websites of all those 25 organizations? 09:56</p>	<p style="text-align: right;">Page 53</p> <p>1 of nearly any disease. Those 2 organizations generally don't make 3 definitive statements as to areas of 4 causation. 5 BY ATTORNEY DAVIDSON: 09:57 6 Q. If you're not giving an opinion on 7 general causation, why are you addressing 8 epidemiology in your report? 9 A. Because I was asked to provide an 10 opinion as to the totality of the 09:57 11 information available relative to risk and 12 biological plausibility of talc contributing 13 to the initiation, progression, or overall 14 phenotype of ovarian cancer. So the 15 epidemiology certainly plays into that 09:57 16 opinion. 17 Q. Is it your testimony that you have 18 done a complete comprehensive evaluation of 19 the epidemiology? 20 A. I would say I have done a thorough 09:58 21 evaluation of the epidemiology. 22 Q. Does your report address all of the 23 major epidemiological studies on talc use 24 and ovarian cancer? 25 A. The report wasn't asked to, again, 09:58</p>

<p style="text-align: right;">Page 54</p> <p>1 provide an epidemiology review. The report 2 was asked to provide a biological -- two 3 things. One was updates to the biological 4 plausibility, meaning more on the 5 mechanistic effect and biology there. 09:58 6 Separately, I was asked to provide some 7 opinions around the genetic testing results 8 of a specific subset of plaintiffs. 9 Q. So how did you decide which 10 epidemiologic studies to mention in your 09:58 11 report and which not to mention? 12 A. I tried to reference more of the 13 encompassing review articles and 14 meta-analysis, and then also some of the 15 cohort and case-control studies that were 09:59 16 larger, meaning encompassing more patients 17 or more participants. 18 Q. Did you address the largest pooled 19 analysis of cohort studies done to date? 20 ATTORNEY O'DELL: Object to the 09:59 21 form. 22 THE WITNESS: I would have to 23 review to answer the -- to give you an 24 answer as to largest. 25 ///</p>	<p style="text-align: right;">Page 56</p> <p>1 (Exhibit Number 2 was marked for 2 identification.) 3 BY ATTORNEY DAVIDSON: 4 Q. Actually -- 5 A. Sorry, which page? 15? 10:01 6 Q. Top of 15. 7 A. I have it. I'm looking at a paper 8 copy. 9 Q. On pages 14 and 15 you say: A more 10 recent meta-analysis focusing on frequent 10:01 11 use (at least twice per week) concluded the 12 increased risk of ovarian cancer with 13 perineal exposure was 31 to 65 percent 14 (Woolen, Lazar and Smith-Bindman 2022). 15 Do you see that? 10:01 16 A. I do see that. 17 Q. Are you aware that that 18 meta-analysis grew out of work that was done 19 for this litigation by a plaintiff's expert? 20 ATTORNEY O'DELL: Object to the 10:02 21 form. 22 THE WITNESS: I am aware of that 23 now. 24 BY ATTORNEY DAVIDSON: 25 Q. How did you become aware of that? 10:02</p>
<p style="text-align: right;">Page 55</p> <p>1 BY ATTORNEY DAVIDSON: 2 Q. And it's your testimony that you 3 decided that you identified all the epi 4 studies yourself and that you decided which 5 ones to include in your report, not counsel? 09:59 6 A. I decided which ones to include in 7 my report -- as part of the preparation for 8 this deposition, I was provided the report 9 of -- again, I would have to look. I'm not 10 looking at the moment. I believe it was 10:00 11 contained in Dr. Wolf's expert report. 12 There were force plots summarizing a large 13 number of studies. What I recall in my 14 report is the -- there were two review 15 articles. And in that review article were a 10:00 16 number of references for both cohort as well 17 as meta-analysis studies. I was not 18 provided specific scientific literature by 19 the plaintiff attorneys to be included in 20 the report. 10:00 21 Q. Let's mark your report as 22 Exhibit 2. Amended Rule 26 expert report 23 Shawn Levy, dated November 15 as Exhibit 2, 24 and let's turn to page 15. 25 ///</p>	<p style="text-align: right;">Page 57</p> <p>1 A. It came up in my discussions. 2 ATTORNEY O'DELL: You may say 3 that, but you can't go beyond that in 4 terms of discussions with -- 5 ATTORNEY DAVIDSON: I'm not asking 10:02 6 about your discussions with counsel. 7 That is privileged. 8 THE WITNESS: I was not aware of 9 that when it was referenced. I became 10 aware of it after the report was 10:02 11 drafted. 12 BY ATTORNEY DAVIDSON: 13 Q. When you put this in your expert 14 report, you didn't realize that 15 Dr. Smith-Bindman is a plaintiff's expert? 10:02 16 A. No, I had no knowledge of that at 17 the time. 18 Q. Did you read the paper? 19 A. Yes. 20 Q. Did you read the conflict of 10:02 21 interest disclosure? 22 A. Again, I'd have to look at the 23 paper. If I did read it, it didn't stand 24 out. 25 Q. Okay. 10:03</p>

<p style="text-align: right;">Page 58</p> <p>1 A. During my review, I may not -- I 2 would say -- it would be fair to say I did 3 not look at every conflict of interest 4 statement or necessarily reference material 5 or even author affiliations, as an example, 10:03 6 as when I was reviewing some of this 7 literature. 8 Q. Do you know how many papers you 9 cited in your amended report that were, in 10 fact, authored or coauthored by paid 10:03 11 plaintiff's experts in this litigation? 12 ATTORNEY O'DELL: Object to the 13 form. 14 THE WITNESS: No, I do not. I 15 don't know that. I don't know the 10:03 16 identity of all of the plaintiff's 17 witnesses. 18 BY ATTORNEY DAVIDSON: 19 Q. Did you notice the conflict of 20 interest disclosures in any of the papers 10:03 21 you read? 22 A. None stood out to me. 23 Q. And you located the Woolen paper by 24 yourself? 25 A. As far as I recall, yes. 10:03</p>	<p style="text-align: right;">Page 60</p> <p>1 Q. My question is: Do you know why 2 you didn't cite O'Brien 2020 in this report? 3 ATTORNEY O'DELL: Objection to the 4 form. Asked and answered. 5 THE WITNESS: No. Again, I'd have 10:05 6 to look at the paper to give you an 7 answer. 8 BY ATTORNEY DAVIDSON: 9 Q. You'd have to look at the paper to 10 tell me why it wasn't cited? 10:05 11 ATTORNEY O'DELL: Object to the 12 form. 13 THE WITNESS: To tell you if I had 14 seen it and whether or not I chose not 10:05 15 to include it or whether I didn't find 16 the paper. Again, that's why -- I 17 would need to look -- that's why I'm 18 saying I need to review. 19 BY ATTORNEY DAVIDSON: 20 Q. What was the search term you used? 10:05 21 A. There were several -- 22 Q. That pulls up Woolen? 23 A. I can't answer. I can't give you 24 an accurate answer to that to know 25 specifically. I generally was using terms 10:05</p>
<p style="text-align: right;">Page 59</p> <p>1 Q. When you did your search, did you 2 locate a paper by O'Brien from NIH 3 addressing a pooled cohort of -- a pooled 4 analysis of cohort studies? 5 A. I believe so. O'Brien sounds 10:04 6 familiar. I would need to double-check if 7 I've cited that in the report or not. 8 Q. You did not cite it in this report. 9 Do you know why? 10 ATTORNEY O'DELL: Object to the 10:04 11 form. 12 THE WITNESS: No. I would have to 13 see if it was part of the -- again, I 14 would need to review their -- as I 15 mentioned in the earlier part of the 10:04 16 testimony, there were some review 17 articles as well as some of the more 18 encompassing papers that may have 19 included that in that. I do believe 20 it was in the summary force plots that 10:04 21 I mentioned as well. 22 BY ATTORNEY DAVIDSON: 23 Q. But you got the force plot after 24 you wrote this report. 25 A. Correct. 10:04</p>	<p style="text-align: right;">Page 61</p> <p>1 such as ovarian cancer, talc, and things 2 along those lines. 3 Q. And you searched in PubMed? 4 A. PubMed, Google Scholar. 5 Q. Any paper in PubMed that had talc 10:05 6 and ovarian cancer in the title, it's fair 7 to assume, would have been picked up? 8 ATTORNEY O'DELL: Object to the 9 form. 10 THE WITNESS: Fair to assume. 10:06 11 BY ATTORNEY DAVIDSON: 12 Q. Okay. 13 A. Now, my search was biased towards 14 more recent references, again, given the 15 requests of what I was asked to provide an 10:06 16 opinion on in terms of the update to the 17 report. 18 Q. But you did add papers from 2019; 19 right? On page 14 you added Taher, which 20 was 2019; right? 10:06 21 A. Correct. 22 Q. And O'Brien -- 23 ATTORNEY O'DELL: I'm sorry. Let 24 him finish. 25 THE WITNESS: The focus was on 10:06</p>

<p style="text-align: right;">Page 62</p> <p>1 more references current from the</p> <p>2 timing of the last deposition until</p> <p>3 now or the last report until now. So</p> <p>4 roughly 2019 through 2023.</p> <p>5 BY ATTORNEY DAVIDSON: 10:06</p> <p>6 Q. But the paper I'm asking about is</p> <p>7 2020.</p> <p>8 A. Right. I'd have to review the</p> <p>9 paper to provide you a more complete answer.</p> <p>10 Q. Did you conduct a systematic review 10:06</p> <p>11 of epidemiologic literature?</p> <p>12 A. I conducted a review of the</p> <p>13 epidemiologic literature, as I answered. As</p> <p>14 far as using terms like "complete" or</p> <p>15 "systemic," I think that would be open to 10:07</p> <p>16 probably opinion.</p> <p>17 Q. Would it be open to --</p> <p>18 A. I found --</p> <p>19 Q. Hold on.</p> <p>20 You said it would be open to 10:07</p> <p>21 opinion?</p> <p>22 A. Yes. The word "complete," meaning</p> <p>23 fully comprehensive. Is there the</p> <p>24 possibility of seeing every single piece of</p> <p>25 literature in epidemiology? Certainly. 10:07</p>	<p style="text-align: right;">Page 64</p> <p>1 to synthesize additional conclusions</p> <p>2 or information from that work.</p> <p>3 BY ATTORNEY DAVIDSON:</p> <p>4 Q. Is the systematic review you</p> <p>5 conducted of the epidemiological literature 10:08</p> <p>6 all set forth on pages 14 through 16?</p> <p>7 ATTORNEY O'DELL: Object to the</p> <p>8 form.</p> <p>9 THE WITNESS: No, I wouldn't -- is</p> <p>10 it all set forth? I would say during 10:08</p> <p>11 my review, the literature that was</p> <p>12 supportive of my opinion and also</p> <p>13 supportive of the -- of that review is</p> <p>14 contained. And then there's -- and</p> <p>15 for many of these papers, it's 10:09</p> <p>16 literature cited therein.</p> <p>17 BY ATTORNEY DAVIDSON:</p> <p>18 Q. How can I see the steps you took in</p> <p>19 your systematic review?</p> <p>20 ATTORNEY O'DELL: Objection to 10:09</p> <p>21 form.</p> <p>22 THE WITNESS: Well, I think that's</p> <p>23 what we're discussing today.</p> <p>24 BY ATTORNEY DAVIDSON:</p> <p>25 Q. Are the steps in your systematic 10:09</p>
<p style="text-align: right;">Page 63</p> <p>1 But, again, it's a very -- it's a broad</p> <p>2 question.</p> <p>3 Q. The word I used was "systematic";</p> <p>4 right?</p> <p>5 A. Yes. I would characterize my 10:07</p> <p>6 review as systematic.</p> <p>7 Q. What is a systematic review?</p> <p>8 A. One that follows a process.</p> <p>9 Q. Could you define for me what a</p> <p>10 systematic review is in the scientific 10:07</p> <p>11 community and explain how you followed one?</p> <p>12 ATTORNEY O'DELL: Object to the</p> <p>13 form.</p> <p>14 THE WITNESS: I can provide an</p> <p>15 answer of how I followed one. I would 10:07</p> <p>16 say it would be generally accepted</p> <p>17 that it would begin with a search.</p> <p>18 And then starting through those</p> <p>19 papers, there's a process of reviewing</p> <p>20 for older papers, what they have been 10:08</p> <p>21 cited by. And then for papers that</p> <p>22 are newer, what there are citations</p> <p>23 of. And then continuing that with, as</p> <p>24 I said, review articles or other</p> <p>25 materials that have had an opportunity 10:08</p>	<p style="text-align: right;">Page 65</p> <p>1 review laid out somewhere?</p> <p>2 A. No, I didn't -- I wasn't -- I did</p> <p>3 not include, nor was I asked to provide, the</p> <p>4 steps that were taken in the systematic</p> <p>5 review. 10:09</p> <p>6 Q. Did you follow a specific protocol</p> <p>7 for your systematic review?</p> <p>8 ATTORNEY O'DELL: Object to the</p> <p>9 form.</p> <p>10 THE WITNESS: I mean, I followed a 10:10</p> <p>11 generally accepted process, I would</p> <p>12 say, in the scientific world or with</p> <p>13 some of my background and experience</p> <p>14 as to reviewing materials in a</p> <p>15 specific subject area to develop an 10:10</p> <p>16 opinion on the materials that I was</p> <p>17 asked to develop an opinion on.</p> <p>18 Again, that included reviewing the</p> <p>19 available peer-reviewed literature as</p> <p>20 well as the available materials that 10:10</p> <p>21 are outside of the peer-reviewed</p> <p>22 literature that I could also find via</p> <p>23 searching through either Web-based or</p> <p>24 materials that were available to me.</p> <p>25 ///</p>

<p style="text-align: right;">Page 66</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. So did you review a lot of epi</p> <p>3 studies that aren't actually listed under</p> <p>4 materials reviewed?</p> <p>5 ATTORNEY O'DELL: Object to the 10:10</p> <p>6 form.</p> <p>7 THE WITNESS: No, I wouldn't say a</p> <p>8 lot. Again, I was reviewing the</p> <p>9 available -- the materials I could</p> <p>10 find and that I was able to access, 10:11</p> <p>11 either through library access through</p> <p>12 papers or things that were available</p> <p>13 in the public domain as well as some</p> <p>14 of the websites that we were talking</p> <p>15 about earlier. I didn't necessarily 10:11</p> <p>16 reference -- if I did not pull a fact</p> <p>17 or an opinion or a conclusion or a</p> <p>18 piece of data from a paper, then I</p> <p>19 would not have referenced it in the</p> <p>20 report; therefore, not necessarily 10:11</p> <p>21 everything I looked at is contained in</p> <p>22 the report.</p> <p>23 BY ATTORNEY DAVIDSON:</p> <p>24 Q. This is what I'm confused about.</p> <p>25 You said you did a systematic review. 10:11</p>	<p style="text-align: right;">Page 68</p> <p>1 A. No, it's not my testimony.</p> <p>2 Q. I'm confused.</p> <p>3 A. I said it was systematic, but I did</p> <p>4 not make --</p> <p>5 Q. Your review of the epidemiologic 10:12</p> <p>6 literature was systematic?</p> <p>7 ATTORNEY O'DELL: Let him finish</p> <p>8 his answer, please.</p> <p>9 THE WITNESS: Your specific</p> <p>10 question is on: Was my review of the 10:12</p> <p>11 epidemiological literature systematic</p> <p>12 and comprehensive? And my response is</p> <p>13 that my review of the literature, in</p> <p>14 general, and that review was not</p> <p>15 specific to epidemiology. 10:12</p> <p>16 BY ATTORNEY DAVIDSON:</p> <p>17 Q. But it included epidemiology?</p> <p>18 A. Yes, correct.</p> <p>19 Q. As part of that review, did you</p> <p>20 review all the relevant epidemiology? 10:13</p> <p>21 A. As far as I know.</p> <p>22 Q. So is it your testimony here today</p> <p>23 that your materials reviewed list includes</p> <p>24 all the relevant epidemiology?</p> <p>25 ATTORNEY O'DELL: Object to the 10:13</p>
<p style="text-align: right;">Page 67</p> <p>1 You said it was a comprehensive</p> <p>2 review of the epidemiological literature;</p> <p>3 correct?</p> <p>4 ATTORNEY O'DELL: Object to the</p> <p>5 form. 10:11</p> <p>6 THE WITNESS: No. I said I</p> <p>7 performed a review that was</p> <p>8 systematic, yes. I did not make an</p> <p>9 assessment as to how comprehensive it</p> <p>10 may have been with respect to 10:11</p> <p>11 specifically the epidemiology</p> <p>12 literature. I was not searching with</p> <p>13 any specificity towards epidemiology</p> <p>14 in my report. I was doing a general</p> <p>15 review of the literature and what was 10:12</p> <p>16 found in the ovarian cancer and talc</p> <p>17 area.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. So your review of the epidemiologic</p> <p>20 literature was systematic but not 10:12</p> <p>21 comprehensive?</p> <p>22 ATTORNEY O'DELL: Object to the</p> <p>23 form. Misstates his testimony.</p> <p>24 BY ATTORNEY DAVIDSON:</p> <p>25 Q. Is that your testimony? 10:12</p>	<p style="text-align: right;">Page 69</p> <p>1 form.</p> <p>2 THE WITNESS: Again, I can't</p> <p>3 answer that because I don't know what</p> <p>4 the universe of epidemiological</p> <p>5 literature is in relation to this. 10:13</p> <p>6 BY ATTORNEY DAVIDSON:</p> <p>7 Q. Is it your testimony that your</p> <p>8 materials reviewed list includes all the</p> <p>9 epidemiology that would be pulled up by</p> <p>10 doing a search in PubMed for talc and 10:13</p> <p>11 ovarian cancer?</p> <p>12 ATTORNEY O'DELL: Objection to the</p> <p>13 form.</p> <p>14 THE WITNESS: Again, I wasn't</p> <p>15 asked to make that assessment. I 10:13</p> <p>16 wasn't asked to assess all of the</p> <p>17 epidemiological literature that's</p> <p>18 available, but given the meta-analysis</p> <p>19 and the review articles that are</p> <p>20 cited, I would have to go back through 10:13</p> <p>21 those papers, not only those</p> <p>22 individual citations but all of the</p> <p>23 materials cited therein, to be able to</p> <p>24 provide you an answer.</p> <p>25 Again, I didn't perform an 10:14</p>

<p style="text-align: right;">Page 70</p> <p>1 analysis to answer the question: Is 2 my materials cited list comprehensive 3 as it relates to talc and ovarian 4 cancer epidemiological data? 5 From looking at the -- I would say 10:14 6 it is systematic. And I would say it 7 is reasonably comprehensive, given the 8 studies that were found and the more 9 recent ones that are encompassing to 10 the older studies, but I can't give 10:14 11 you an answer as to how complete that 12 may be in relation to all of the 13 available literature because I didn't 14 perform that analysis. 15 BY ATTORNEY DAVIDSON: 10:14 16 Q. So just to make sure I understand, 17 your testimony today is that you did a 18 systematic analysis, but you don't know how 19 complete it was? 20 ATTORNEY O'DELL: Objection to the 10:14 21 form. 22 BY ATTORNEY DAVIDSON: 23 Q. I believe that's what you just 24 said. 25 A. No. I said I did an analysis of 10:14</p>	<p style="text-align: right;">Page 72</p> <p>1 been going about an hour and five 2 minutes. Can we take a five-minute -- 3 ATTORNEY DAVIDSON: I just have 4 one more question, and we can take a 5 break. 10:16 6 ATTORNEY O'DELL: Sure. 7 BY ATTORNEY DAVIDSON: 8 Q. Dr. Levy, are the steps of your 9 systematic review written anywhere? 10 ATTORNEY O'DELL: Object to the 10:16 11 form. 12 THE WITNESS: Are you asking: Did 13 I write down the specific methodology 14 that I used in this particular search? 15 BY ATTORNEY DAVIDSON: 10:16 16 Q. Yes. 17 A. No, I did not. 18 Q. And did you follow any written 19 systematic review guidelines that are 20 contained anywhere in the textbook or 10:16 21 guidebook? 22 A. Do you have an example of such 23 guidelines, and I can tell you if they were 24 the same -- if they were similar to or what 25 percentage I followed of them? But I 10:16</p>
<p style="text-align: right;">Page 71</p> <p>1 the available literature to develop the 2 opinions that are expressed in the report, 3 and I believe that that analysis is complete 4 with respect to those opinions. But your 5 question was: Was it fully comprehensive to 10:15 6 all of the literature available? And I 7 didn't perform that analysis. 8 Q. Is it your opinion that you can do 9 a systematic review while only reviewing 10 some of the available literature? 10:15 11 ATTORNEY O'DELL: Objection to the 12 form. That's not what he said. 13 THE WITNESS: Well, you can 14 certainly perform a systematic review 15 that is not comprehensive. They're 10:15 16 not mutually inclusive of each other. 17 A systematic process doesn't 18 necessarily have to be comprehensive. 19 As I stated, the focus was on the more 20 current literature, which by its 10:15 21 nature, at least in the scientific 22 literature space, is generally 23 inclusive of previously referenced 24 materials. 25 ATTORNEY O'DELL: Jessica, we've 10:15</p>	<p style="text-align: right;">Page 73</p> <p>1 used -- 2 Q. I'm asking -- 3 ATTORNEY O'DELL: Please continue. 4 THE WITNESS: I would say I used 5 generally accepted methodological and 10:16 6 tools available for performing a 7 scientific literature review to 8 provide an opinion on a specific 9 subject, that I would expect it to be 10 viewed by colleagues in the field to 10:17 11 be, you know, in a standard and 12 acceptable practice for this with 13 someone with my experience and 14 background. 15 BY ATTORNEY DAVIDSON: 10:17 16 Q. Can you point to any citation for 17 the fact that your systematic review is one 18 that's accepted in the scientific community? 19 ATTORNEY O'DELL: Object to the 20 form. 10:17 21 THE WITNESS: No. I'm not aware 22 of any documented process that would 23 be generally accepted for that. I 24 don't know that one exists. 25 ATTORNEY DAVIDSON: Okay. We can 10:17</p>

<p style="text-align: right;">Page 74</p> <p>1 take our break now, Leigh.</p> <p>2 (Recess taken from 10:17 a.m. to</p> <p>3 10:32 a.m.)</p> <p>4 BY ATTORNEY DAVIDSON:</p> <p>5 Q. Dr. Levy, is there anywhere where 10:32</p> <p>6 you saved the searches you did?</p> <p>7 ATTORNEY O'DELL: Object to the</p> <p>8 form. Vague.</p> <p>9 THE WITNESS: No, not specifically</p> <p>10 the searches that I performed. The 10:33</p> <p>11 closest thing to saved would be</p> <p>12 browser history.</p> <p>13 BY ATTORNEY DAVIDSON:</p> <p>14 Q. Your most recent materials and data</p> <p>15 considered list was produced on May 4th. 10:33</p> <p>16 Let's mark that as Exhibit 3.</p> <p>17 (Exhibit Number 3 was marked for</p> <p>18 identification.)</p> <p>19 BY ATTORNEY DAVIDSON:</p> <p>20 Q. Did you personally create this 10:33</p> <p>21 list, or was it created by the plaintiff's</p> <p>22 lawyers?</p> <p>23 A. I'm looking at the list now. This</p> <p>24 summary format of the list I did not create.</p> <p>25 Q. Okay. 10:33</p>	<p style="text-align: right;">Page 76</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Do you know whether any of the</p> <p>3 authors of this paper are plaintiff's</p> <p>4 experts?</p> <p>5 ATTORNEY O'DELL: Object to the 10:36</p> <p>6 form.</p> <p>7 THE WITNESS: No. I don't see any</p> <p>8 names that I recognize as a</p> <p>9 plaintiff's witness.</p> <p>10 BY ATTORNEY DAVIDSON: 10:36</p> <p>11 Q. Okay. Let's look at Davis, 2021.</p> <p>12 Same here? Don't recognize any --</p> <p>13 do you recognize any names here?</p> <p>14 ATTORNEY O'DELL: Objection to the</p> <p>15 form. 10:36</p> <p>16 BY ATTORNEY DAVIDSON:</p> <p>17 Q. As plaintiff's experts?</p> <p>18 A. Not specifically as a plaintiff's</p> <p>19 expert. But I would have to -- again, I</p> <p>20 would have to clarify. The Beeghly-Fadiel 10:37</p> <p>21 name is familiar, but I don't know if it's</p> <p>22 from seeing that name in other publications</p> <p>23 or -- I don't think it's a plaintiff's</p> <p>24 witness. That's the only one for this</p> <p>25 particular paper that looks familiar. 10:37</p>
<p style="text-align: right;">Page 75</p> <p>1 ATTORNEY DAVIDSON: Noah, if you</p> <p>2 could put that up on the screen. Can</p> <p>3 you put it in the chat as well?</p> <p>4 ATTORNEY EPSTEIN: I believe it's</p> <p>5 in the chat. 10:34</p> <p>6 BY ATTORNEY DAVIDSON:</p> <p>7 Q. One of the papers you added was</p> <p>8 Gabriel 2019.</p> <p>9 ATTORNEY DAVIDSON: Noah, do you</p> <p>10 want to go to that paper? 10:35</p> <p>11 BY ATTORNEY DAVIDSON:</p> <p>12 Q. It might actually be easier to mark</p> <p>13 as an exhibit or red line, but for now, are</p> <p>14 you aware of whether any of the authors of</p> <p>15 that paper are plaintiff's experts? 10:35</p> <p>16 A. No, I'm not. I'm not aware.</p> <p>17 Q. Let's go to Phung 2022.</p> <p>18 ATTORNEY O'DELL: If you need to</p> <p>19 see any of these publications,</p> <p>20 Dr. Levy, if counsel for Johnson & 10:35</p> <p>21 Johnson won't provide them, we'll try</p> <p>22 to do that.</p> <p>23 THE WITNESS: What was the second</p> <p>24 one? Phung, yes. Got it.</p> <p>25 ///</p>	<p style="text-align: right;">Page 77</p> <p>1 Again, I'd have to -- nothing else is</p> <p>2 familiar.</p> <p>3 Q. So my question is this: You added</p> <p>4 six epi studies to your materials reviewed;</p> <p>5 four of them were co-authored by plaintiff's 10:37</p> <p>6 experts.</p> <p>7 It's your testimony that you</p> <p>8 identified these papers on your own and</p> <p>9 added them of your own selection; is that</p> <p>10 correct? 10:37</p> <p>11 A. Which were the ones? I'm just</p> <p>12 looking briefly.</p> <p>13 ATTORNEY O'DELL: I think you're</p> <p>14 looking at your --</p> <p>15 BY ATTORNEY DAVIDSON: 10:38</p> <p>16 Q. Dr. Levy, you're really not</p> <p>17 supposed to talk to your counsel during the</p> <p>18 deposition if you have a question.</p> <p>19 A. So the materials and data</p> <p>20 considered list, materials and data 10:38</p> <p>21 considered, given that that was just</p> <p>22 produced in May, you're asking if all of</p> <p>23 those or any of those were ones that I</p> <p>24 provided or were provided by --</p> <p>25 Q. That was not my question. I said 10:38</p>

<p style="text-align: right;">Page 78</p> <p>1 that you added six epidemiologic studies; 2 four of them were authored by or co-authored 3 by plaintiff's experts. 4 Is it your testimony that you 5 decided to add those four on your own and 10:38 6 that you found them through your own 7 research? 8 ATTORNEY O'DELL: Object to the 9 form. 10 THE WITNESS: I'm not sure if I 10:39 11 found those or if they were provided. 12 That's why I was asking -- my question 13 to the counsel was more on the 14 cross-references between this and my 15 literature cited. If it's on my 10:39 16 literature cited list, I may answer 17 the question differently. 18 BY ATTORNEY DAVIDSON: 19 Q. Right. This is your deposition; so 20 obviously you can't talk to Ms. O'Dell in 10:39 21 the middle of it. 22 A. I understand. 23 ATTORNEY O'DELL: Object to the 24 form. I think he was asking what the 25 exhibit was that was being referred 10:39</p>	<p style="text-align: right;">Page 80</p> <p>1 Q. I'm not asking you to look at your 2 paper right now. You can look at it later. 3 I'm asking you to look at this entry on your 4 materials considered list and tell me, it 5 was just this week on Saturday, why you 10:40 6 added this on Saturday to your materials 7 considered list. 8 ATTORNEY O'DELL: Object to the 9 form. Asked and answered. 10 THE WITNESS: So there was -- 10:40 11 yeah. It was added because it was 12 either something we discussed or it 13 was something that was considered. 14 BY ATTORNEY DAVIDSON: 15 Q. Did you make the decision to add 10:41 16 that to your materials considered list on 17 Saturday? 18 A. I don't recall if I made the 19 decision to add it or not. 20 Q. Do you know when you first read it? 10:41 21 A. I'd have to look at the paper to 22 tell you for sure. 23 Q. So you're not sure when you first 24 read O'Brien and Wentzensen's 2020 paper in 25 JAMA entitled: Association of Powder Use in 10:41</p>
<p style="text-align: right;">Page 79</p> <p>1 to, and I can certainly do that. 2 BY ATTORNEY DAVIDSON: 3 Q. Dr. Levy? 4 A. Yes. 5 Q. If we can turn to -- 10:39 6 ATTORNEY DAVIDSON: Noah, can we 7 turn to O'Brien 2020. 8 ATTORNEY EPSTEIN: Do you want me 9 to put that in chat and then share my 10 screen? 10:39 11 ATTORNEY DAVIDSON: No, no. I 12 mean on this list. 13 ATTORNEY EPSTEIN: Okay. Sorry. 14 BY ATTORNEY DAVIDSON: 15 Q. Dr. Levy? 10:40 16 A. Yes. 17 Q. We received a materials considered 18 list with your report November, 2023, and 19 this paper, O'Brien 2020, was not on there. 20 It was first added to your materials 10:40 21 considered list on Saturday. 22 Do you know why it was added to 23 your materials considered list on Saturday? 24 A. I'd have to look at the paper, if 25 you can give me just a moment. 10:40</p>	<p style="text-align: right;">Page 81</p> <p>1 the Genital Area With Risk of Ovarian 2 Cancer; correct? 3 ATTORNEY O'DELL: Objection to the 4 form. Misstates his testimony. He's 5 asked to see the reference. 10:41 6 ATTORNEY DAVIDSON: I understand. 7 ATTORNEY O'DELL: Let me finish. 8 He's asked to see the reference. Are 9 you refusing to provide it to him so 10 he can see it? 10:41 11 BY ATTORNEY DAVIDSON: 12 Q. Dr. Levy -- 13 ATTORNEY O'DELL: No, no, no. I'm 14 asking you a question. Are you 15 refusing to provide -- 10:42 16 ATTORNEY DAVIDSON: I'm not 17 answering your questions, Leigh. I'm 18 not being deposed. 19 ATTORNEY O'DELL: Dr. Levy, if you 20 need to see the reference, then you 10:42 21 may see it, and you just need to ask. 22 ATTORNEY DAVIDSON: Leigh, these 23 games are really not appreciated -- 24 ATTORNEY O'DELL: Your games -- 25 ///</p>

<p style="text-align: right;">Page 82</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Dr. Levy, do you recall what my</p> <p>3 question was?</p> <p>4 Dr. Levy, if you're looking at</p> <p>5 something that I didn't ask you to look at, 10:42</p> <p>6 that is a violation of ethics?</p> <p>7 ATTORNEY O'DELL: No, it's not.</p> <p>8 He's looking at his report.</p> <p>9 ATTORNEY DAVIDSON: Certainly it</p> <p>10 is. 10:42</p> <p>11 ATTORNEY O'DELL: He's looking at</p> <p>12 his report, Jessica. He's entitled to</p> <p>13 do that --</p> <p>14 ATTORNEY DAVIDSON: He's not</p> <p>15 entitled to look at something without 10:42</p> <p>16 telling me. That's not appropriate in</p> <p>17 a deposition.</p> <p>18 ATTORNEY O'DELL: You can be here</p> <p>19 in the room, and you could see him</p> <p>20 reviewing his own report, which is 10:42</p> <p>21 perfectly appropriate. So don't</p> <p>22 suggest anything otherwise because you</p> <p>23 know that's not correct.</p> <p>24 BY ATTORNEY DAVIDSON:</p> <p>25 Q. Dr. Levy, do you recall when you 10:42</p>	<p style="text-align: right;">Page 84</p> <p>1 A. 2024. What's the first author?</p> <p>2 Q. Chang.</p> <p>3 A. Chang.</p> <p>4 Q. What are you looking at now?</p> <p>5 A. The exhibit, the materials list, 10:44</p> <p>6 what you've provided in the chat.</p> <p>7 Q. It's not on there.</p> <p>8 A. Okay. Again, if you could show me</p> <p>9 the complete reference, I can give you an</p> <p>10 answer. 10:44</p> <p>11 Q. Do you recall reading a 2024 paper</p> <p>12 by an author named Chang about Douching,</p> <p>13 Talc Use and Ovarian Cancer?</p> <p>14 ATTORNEY O'DELL: Objection.</p> <p>15 Asked and answered. 10:44</p> <p>16 THE WITNESS: If I can see ideally</p> <p>17 the paper or the complete reference.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. I'll take that as a no.</p> <p>20 ATTORNEY O'DELL: Objection. 10:44</p> <p>21 That's not what his answer was.</p> <p>22 BY ATTORNEY DAVIDSON:</p> <p>23 Q. Do you recall it without looking at</p> <p>24 a reference?</p> <p>25 ATTORNEY O'DELL: He's asked to 10:45</p>
<p style="text-align: right;">Page 83</p> <p>1 read O'Brien 2020 or not? Without looking</p> <p>2 at anything.</p> <p>3 A. No, I can't give you a date of when</p> <p>4 I read that without looking at it.</p> <p>5 Q. And do you recall, without looking 10:43</p> <p>6 at that paper, generally what that paper is?</p> <p>7 A. It's part of the epidemiology</p> <p>8 literature. If I remember right, it was</p> <p>9 more along the lines of general use of talc,</p> <p>10 and I believe this was with a mild positive 10:43</p> <p>11 association, but I may be thinking of the</p> <p>12 other O'Brien paper that was a summary of</p> <p>13 the epidemiology literature. Again, I can</p> <p>14 take a moment and review the paper to give</p> <p>15 you a better answer. 10:43</p> <p>16 Q. Do you know what sort of</p> <p>17 epidemiological study it was?</p> <p>18 A. To give you a correct answer, I'm</p> <p>19 going to look at the paper, if you'll give</p> <p>20 me a moment. 10:43</p> <p>21 Q. I don't want to look at the paper</p> <p>22 right now. Thank you. Let's move on.</p> <p>23 Are you familiar with a 2024 paper</p> <p>24 by Chang that reports on talc use and</p> <p>25 ovarian cancer? 10:44</p>	<p style="text-align: right;">Page 85</p> <p>1 see the reference.</p> <p>2 ATTORNEY DAVIDSON: Oh, my God.</p> <p>3 ATTORNEY O'DELL: He has hundreds</p> <p>4 of articles on his materials list.</p> <p>5 He's asked to see it to confirm 10:45</p> <p>6 whether he's seen it or not. If you</p> <p>7 want to ask him a question, provide</p> <p>8 the reference or the document.</p> <p>9 BY ATTORNEY DAVIDSON:</p> <p>10 Q. Dr. Levy, do you recall reading a 10:45</p> <p>11 2024 paper by Chang addressing potential</p> <p>12 association between talc use and douching</p> <p>13 and talc use and ovarian cancer?</p> <p>14 ATTORNEY O'DELL: Objection to</p> <p>15 form. Asked and answered. 10:45</p> <p>16 THE WITNESS: I read a variety of</p> <p>17 literature and saw a reference to a</p> <p>18 variety of literature on that precise</p> <p>19 subject, but answering whether it was</p> <p>20 that specific paper or not, I would 10:45</p> <p>21 need to see the paper to give you an</p> <p>22 answer.</p> <p>23 ATTORNEY DAVIDSON: Thank you,</p> <p>24 Leigh, for feeding that answer to your</p> <p>25 witness. 10:45</p>

<p style="text-align: right;">Page 86</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Dr. Levy, when was the last time</p> <p>3 you did a search of new literature? Have</p> <p>4 you done any search of literature since 2024</p> <p>5 that would have picked up 2024 literature? 10:46</p> <p>6 A. In preparation for this, as I was</p> <p>7 reading some of the material referenced as</p> <p>8 well as some of the other expert reports, I</p> <p>9 did review -- my process was to review two</p> <p>10 things. One is literature cited in those 10:46</p> <p>11 reports and then asking a -- doing a more</p> <p>12 current search to verify if there was any</p> <p>13 materials that cited those papers. And so</p> <p>14 in that sense, I had seen some additional</p> <p>15 literature that may have been dated 2023 or 10:46</p> <p>16 2024. I have not -- I did not repeat the</p> <p>17 same process I used during the generation of</p> <p>18 the report -- in a systematic way to</p> <p>19 evaluate any new literature that may have</p> <p>20 come out since the report draft. 10:46</p> <p>21 Q. If you recently identified a report</p> <p>22 and read it, it would be in your materials</p> <p>23 considered list; correct?</p> <p>24 A. The only exception would be a</p> <p>25 couple of references that were from the last 10:47</p>	<p style="text-align: right;">Page 88</p> <p>1 Those were two pieces of literature</p> <p>2 that was reviewed very recently,</p> <p>3 specifically in the last couple of days.</p> <p>4 Obviously they're not contained or</p> <p>5 referenced in the report, certainly given 10:48</p> <p>6 the timeline I just explained.</p> <p>7 Q. Are you aware that four of the five</p> <p>8 mechanistic studies added to your materials</p> <p>9 and data considered list were authored by</p> <p>10 scientists who are being paid by plaintiffs 10:49</p> <p>11 as experts in this litigation?</p> <p>12 ATTORNEY O'DELL: Object to the</p> <p>13 form.</p> <p>14 THE WITNESS: I can't specifically</p> <p>15 say on the numbers, but yes, I am 10:49</p> <p>16 aware of how some of that research was</p> <p>17 supported.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. Which research was that?</p> <p>20 A. From Dr. Saed. 10:49</p> <p>21 Q. Are you aware that the Mandarino</p> <p>22 paper is co-authored by plaintiff's experts</p> <p>23 in addition to the Saed paper?</p> <p>24 A. That sounds familiar, yes.</p> <p>25 Q. Are you aware that the Brieger 10:49</p>
<p style="text-align: right;">Page 87</p> <p>1 day or two.</p> <p>2 Q. What did you review in the last day</p> <p>3 or two that's not in your materials</p> <p>4 referenced list?</p> <p>5 A. Again, it would be some of the 10:47</p> <p>6 literature cited. It's in my notes, which</p> <p>7 you've asked for. You can see it there, or</p> <p>8 I'm happy to show you on the screen.</p> <p>9 Q. I'd like to know what literature</p> <p>10 you've reviewed in the last few days that's 10:47</p> <p>11 not on your materials referenced list.</p> <p>12 A. There were two. Let me make</p> <p>13 sure -- let me actually just make sure that</p> <p>14 it's not on the list. It didn't look</p> <p>15 familiar when I looked at it. Yeah, so 10:47</p> <p>16 there was a McDonald American Journal of</p> <p>17 Clinical Pathology 2019 which came up as, I</p> <p>18 believe, citing one of the studies that --</p> <p>19 one of the studies from Dr. Godleski. And</p> <p>20 then Ogunsina and Sandler. This was 10:48</p> <p>21 actually from Dr. O'Brien's lab. This was a</p> <p>22 2023 paper. On the association of genital</p> <p>23 talc and douche in early adolescence or</p> <p>24 adulthood. This was focusing on fibroid</p> <p>25 diagnoses rather than ovarian cancer. 10:48</p>	<p style="text-align: right;">Page 89</p> <p>1 paper is co-authored by plaintiff's experts?</p> <p>2 ATTORNEY O'DELL: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: Which Brieger paper?</p> <p>5 That one doesn't sound as familiar, 10:49</p> <p>6 but I want to make sure I give you</p> <p>7 the -- the Brieger 2022? Is that the</p> <p>8 paper you're referring to?</p> <p>9 ATTORNEY DAVIDSON: Uh-huh.</p> <p>10 THE WITNESS: I don't recall 10:50</p> <p>11 discussing that as being supported</p> <p>12 research from the plaintiff's experts,</p> <p>13 but if that's -- it wouldn't -- it</p> <p>14 wouldn't be surprising, I suppose, if</p> <p>15 it was. 10:50</p> <p>16 BY ATTORNEY DAVIDSON:</p> <p>17 Q. If we could turn to the Rs in this</p> <p>18 reliance list.</p> <p>19 A. Okay.</p> <p>20 Q. Go up to Rothman. Go down to 10:50</p> <p>21 Rothman.</p> <p>22 Do you see this entry of Rothman,</p> <p>23 KJ: Six Persistent Research Misconceptions</p> <p>24 J Gen Internal Medicine (2014)?</p> <p>25 A. I do. 10:51</p>

<p style="text-align: right;">Page 90</p> <p>1 Q. Did this come up in your PubMed 2 research?</p> <p>3 A. I don't recall that coming up in 4 the PubMed search.</p> <p>5 Q. How did you find it? 10:51</p> <p>6 A. I don't know that I found it 7 specifically. Again, this being the 8 materials and data considered, it would have 9 also contained other materials that was 10 discussed outside of the report. 10:51</p> <p>11 Q. I don't understand. Your testimony 12 earlier was that you identified the 13 scientific literature cited in this report. 14 Is this not scientific literature?</p> <p>15 ATTORNEY O'DELL: Objection to the 10:51 16 form.</p> <p>17 THE WITNESS: That's not cited in 18 the report.</p> <p>19 BY ATTORNEY DAVIDSON:</p> <p>20 Q. I believe you also testified that 10:52 21 you identified the scientific literature 22 cited in your materials reviewed list?</p> <p>23 ATTORNEY O'DELL: Objection to 24 form. Misstates his testimony.</p> <p>25 THE WITNESS: Yeah, I provided a 10:52</p>	<p style="text-align: right;">Page 92</p> <p>1 says. I'm asking you -- I'm trying to 2 understand the nature of your scientific 3 exploration and what got you to this paper. 4 Reading the paper is not going to tell you 5 what made you read the paper in the first 10:53 6 place.</p> <p>7 I'm trying to understand: Did 8 counsel give you this paper or how you got 9 this paper in the first place? Because, in 10 my opinion, it wouldn't have come up by 10:53 11 searching in PubMed "talc and ovarian 12 cancer."</p> <p>13 ATTORNEY O'DELL: Objection to 14 form.</p> <p>15 Dr. Levy, if you need to look at 10:53 16 the paper, you may look at the paper, 17 the reference or the actual document, 18 to answer counsel's questions 19 accurately.</p> <p>20 BY ATTORNEY DAVIDSON: 10:53 21 Q. We are not pulling up the paper at 22 this point, Dr. Levy.</p> <p>23 I am asking you: How did you 24 obtain this reference? And if you don't 25 know the answer, you can just tell me you 10:54</p>
<p style="text-align: right;">Page 91</p> <p>1 different answer. 2 BY ATTORNEY DAVIDSON:</p> <p>3 Q. Who identified this for you?</p> <p>4 A. The Rothman paper?</p> <p>5 Q. Uh-huh. 10:52</p> <p>6 A. I can't say for sure who identified 7 it.</p> <p>8 Q. You have this paper in your 9 materials reviewed and you don't know why 10 you looked at it? 10:52</p> <p>11 ATTORNEY O'DELL: Objection to 12 form. That's a different question.</p> <p>13 THE WITNESS: I'd like to look at 14 it again, and I can give you an 15 answer. 10:52</p> <p>16 BY ATTORNEY DAVIDSON:</p> <p>17 Q. You need to look at the paper to 18 tell me why you -- please stop looking at 19 Leigh for answers to your questions.</p> <p>20 ATTORNEY O'DELL: Objection to the 10:52 21 characterization. That is inaccurate.</p> <p>22 BY ATTORNEY DAVIDSON:</p> <p>23 Q. You're telling me that you need to 24 look at the Rothman paper to tell me why you 25 looked at it? I'm not asking you what it 10:53</p>	<p style="text-align: right;">Page 93</p> <p>1 don't know.</p> <p>2 ATTORNEY O'DELL: That's a 3 different question. And if he needs 4 to --</p> <p>5 BY ATTORNEY DAVIDSON: 10:54 6 Q. Doctor --</p> <p>7 ATTORNEY O'DELL: Excuse me. This 8 is not a memory test of hundreds of 9 references. These are materials that 10 are part of his considered list. 10:54</p> <p>11 Dr. Levy, if you need to see them, 12 any one of them, you are entitled to 13 do that, and we can put it in front of 14 you. You just let me know what would 15 assist you in answering counsel's 10:54 16 questions accurately.</p> <p>17 BY ATTORNEY DAVIDSON:</p> <p>18 Q. Dr. Levy, I am asking you: Do you 19 recall, sitting here today, how you came to 20 be aware of this paper? 10:54</p> <p>21 A. I don't recall.</p> <p>22 Q. Thank you.</p> <p>23 Do you know whether it was brought 24 to your attention by plaintiff's counsel?</p> <p>25 A. As I said, I'd have to look at it 10:54</p>

<p style="text-align: right;">Page 94</p> <p>1 to give you an answer. To be clear, talc 2 and ovarian cancer were certainly not the 3 only search terms that I used in this 4 review, both during the report and post. 5 Q. What other things did you search? 10:55 6 A. A wide reaching methodology, as I 7 was explaining. Some of it was looking at 8 cited literature from other material; so 9 there wasn't a specific search term. It was 10 based on the cited material. Some of it was 10:55 11 based on other terms observing in the 12 papers, including some of the epidemiology 13 research, some of the mechanistic research. 14 I was also exploring what was available from 15 a -- at least opinions on causation or 10:55 16 progression or initiation. So there's a 17 wide variety of terms that were used in 18 various combinations. 19 Q. So is it now your testimony that 20 you may have identified this document on 10:55 21 your own? 22 ATTORNEY O'DELL: Objection to the 23 form. Misstates his testimony. 24 THE WITNESS: I provided -- my 25 answer stands as I don't recall. 10:55</p>	<p style="text-align: right;">Page 96</p> <p>1 considered. 2 Q. I'm sorry? 3 A. It would have been one of the 4 plaintiff's attorneys in terms of the -- 5 Q. I see. 10:57 6 A. Yeah. 7 Q. When did you read Dr. Chodosh's 8 deposition? 9 A. I can't recall the first time I saw 10 it. I honestly don't remember when he was 10:57 11 deposed. What was the date of the 12 deposition? 13 Q. 2016. 14 A. So probably then prior -- again, I 15 don't recall if I had access to it prior to 10:57 16 the last deposition. 17 Q. Was it on your reliance list in 18 2019? That's what I'm asking. 19 A. Then I don't recall if I read it 20 then. Between that time or between the last 10:57 21 deposition and now. 22 Q. Have you read it in the last six 23 months? 24 A. I have at least looked at it in the 25 last six months. 10:58</p>
<p style="text-align: right;">Page 95</p> <p>1 BY ATTORNEY DAVIDSON: 2 Q. You don't recall what? 3 A. I don't recall exactly how this 4 paper was found. 5 Q. Do you know whether you found it or 10:56 6 someone else found it? 7 ATTORNEY O'DELL: Objection. 8 Asked and answered. 9 THE WITNESS: I don't know. 10 ATTORNEY DAVIDSON: Noah, can you 10:56 11 go up to A. AM. 12 BY ATTORNEY DAVIDSON: 13 Q. Let's look at this paper, Amrhein, 14 Greenland, and McShane: Retire Statistical 15 Significance. Springer Nature Limited. 10:56 16 Do you see that entry, Doctor? 17 A. I do. 18 Q. Did you identify that on your own? 19 A. I don't recall. I am aware of, or 20 had been familiar with, this paper in the 10:56 21 past. I don't recall if I brought it in in 22 this particular case. 23 Q. If you didn't bring it in, who 24 would have brought it in? 25 A. As part of the data or materials 10:56</p>	<p style="text-align: right;">Page 97</p> <p>1 Q. Do you know whether there is a 2 defense expert report that responds to 3 Dr. Longo's 2019 expert report? 4 A. That responds to? I believe so. 5 Q. But you haven't read it; correct? 10:58 6 A. So I don't recall seeing any 7 defense expert reports that were to refute 8 Dr. Longo's analysis of the contents of the 9 talc. 10 Q. And you never asked to see that; 10:58 11 correct? 12 ATTORNEY O'DELL: Object to the 13 form. 14 THE WITNESS: No, I didn't -- I 15 haven't specifically asked for any 10:58 16 defense expert reports. 17 BY ATTORNEY DAVIDSON: 18 Q. At your last deposition, you may 19 recall that you were questioned about a 20 number of lines in your expert report that 10:59 21 were quite similar, indeed identical, to 22 various websites. 23 Do you recall that? 24 A. I do. 25 ATTORNEY O'DELL: Object to the 10:59</p>

25 (Pages 94 - 97)

<p style="text-align: right;">Page 98</p> <p>1 form.</p> <p>2 BY ATTORNEY DAVIDSON:</p> <p>3 Q. And in your current report, your</p> <p>4 amended report, you changed a few words to</p> <p>5 address the plagiarism; correct? 10:59</p> <p>6 ATTORNEY O'DELL: Object to the</p> <p>7 form. Misstates his prior testimony</p> <p>8 and misstates the report.</p> <p>9 THE WITNESS: Similar to this</p> <p>10 report, I was asked to provide a 10:59</p> <p>11 review of the available information on</p> <p>12 a variety of areas related to talc and</p> <p>13 ovarian cancer and the mechanistic --</p> <p>14 the biological plausibility of a</p> <p>15 mechanistic relationship. In the 10:59</p> <p>16 context of writing that report, that</p> <p>17 information came from a variety of</p> <p>18 sources; so it's -- whether it's</p> <p>19 discussed as -- or characterized one</p> <p>20 way or the other, is there a question 11:00</p> <p>21 about the accuracy of the fact that</p> <p>22 was stated or more just a debate about</p> <p>23 where that fact came from?</p> <p>24 BY ATTORNEY DAVIDSON:</p> <p>25 Q. My question was: You changed some 11:00</p>	<p style="text-align: right;">Page 100</p> <p>1 Clinic, Wikipedia, and a few others;</p> <p>2 correct?</p> <p>3 ATTORNEY O'DELL: Objection to</p> <p>4 form. Misstates the prior report, his</p> <p>5 testimony in his last deposition. 11:01</p> <p>6 THE WITNESS: I didn't make</p> <p>7 specific edits to address specifically</p> <p>8 the things you were just describing.</p> <p>9 BY ATTORNEY DAVIDSON:</p> <p>10 Q. Well, let's take a look at a 11:01</p> <p>11 redline of the report then, Exhibit 3.</p> <p>12 Let's go to the page 8 of that redline.</p> <p>13 ATTORNEY DAVIDSON: Noah, can you</p> <p>14 please put it up on the screen. Let's</p> <p>15 mark as Exhibit 3 -- 11:01</p> <p>16 ATTORNEY EPSTEIN: You're on</p> <p>17 Exhibit 4.</p> <p>18 ATTORNEY DAVIDSON: Noah, I'm</p> <p>19 going to mark them as separate</p> <p>20 exhibits by the page. I think it's 11:02</p> <p>21 Exhibit 4. I'm sorry. Is that what</p> <p>22 somebody was trying to say?</p> <p>23 (Exhibit Number 4 was marked for</p> <p>24 identification.)</p> <p>25 ///</p>
<p style="text-align: right;">Page 99</p> <p>1 wording in your current report to address</p> <p>2 the problem in your prior report that</p> <p>3 various sentences were plagiarized from</p> <p>4 websites; correct?</p> <p>5 ATTORNEY O'DELL: Objection to 11:00</p> <p>6 form. Misstates his testimony from</p> <p>7 his last deposition and misstates the</p> <p>8 report itself.</p> <p>9 ATTORNEY DAVIDSON: I didn't</p> <p>10 mention any testimony. 11:00</p> <p>11 ATTORNEY O'DELL: It doesn't</p> <p>12 matter.</p> <p>13 ATTORNEY DAVIDSON: How could I</p> <p>14 misstate testimony if I didn't</p> <p>15 reference it? 11:00</p> <p>16 ATTORNEY O'DELL: It was a part of</p> <p>17 the prior context of the question, as</p> <p>18 you know.</p> <p>19 THE WITNESS: I went through -- as</p> <p>20 you can see, I revised substantial 11:00</p> <p>21 portions of the report.</p> <p>22 BY ATTORNEY DAVIDSON:</p> <p>23 Q. One of the things you did was</p> <p>24 change some of the sentences that were</p> <p>25 plagiarized from various websites, like Mayo 11:01</p>	<p style="text-align: right;">Page 101</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. DNA repair genes. Let's look at</p> <p>3 that sentence: DNA repair genes detect</p> <p>4 errors in cellular DNA and correct them.</p> <p>5 Why did you change "DNA repair 11:02</p> <p>6 genes look for" and change it to "detect"?</p> <p>7 A. Because detect is a more accurate</p> <p>8 description. As you see -- I'm sure as you</p> <p>9 have the compare, you see that there was a</p> <p>10 variety of grammatical and stylistic changes 11:02</p> <p>11 done through the report.</p> <p>12 Q. So you didn't make that change</p> <p>13 because this was copied straight from the</p> <p>14 Mayo Clinic and you wanted to change the</p> <p>15 words of the Mayo Clinic website? It's just 11:03</p> <p>16 coincidence?</p> <p>17 ATTORNEY O'DELL: Object to the</p> <p>18 form. It misstates his testimony.</p> <p>19 THE WITNESS: Again, I made</p> <p>20 wide-ranging changes to the report for 11:03</p> <p>21 stylistic and grammatical and flow and</p> <p>22 just overall improving the content and</p> <p>23 readability of the report.</p> <p>24 BY ATTORNEY DAVIDSON:</p> <p>25 Q. I just want to make sure I 11:03</p>

<p style="text-align: right;">Page 102</p> <p>1 understand your testimony.</p> <p>2 Your testimony is that the reason</p> <p>3 you changed three words in this sentence had</p> <p>4 nothing to do with the fact that this</p> <p>5 sentence was identical to a sentence on the 11:03</p> <p>6 Mayo Clinic website?</p> <p>7 ATTORNEY O'DELL: Objection.</p> <p>8 Asked and answered.</p> <p>9 THE WITNESS: That's correct, yes.</p> <p>10 BY ATTORNEY DAVIDSON: 11:03</p> <p>11 Q. Do you believe that changing three</p> <p>12 words in a sentence would address</p> <p>13 plagiarizing something from a website?</p> <p>14 ATTORNEY O'DELL: Objection.</p> <p>15 Misstates his prior report and his 11:03</p> <p>16 prior testimony.</p> <p>17 You may answer.</p> <p>18 THE WITNESS: This is a general</p> <p>19 background sentence. There are only</p> <p>20 so many ways to say: DNA repair genes 11:04</p> <p>21 correct error in cellular DNA.</p> <p>22 BY ATTORNEY DAVIDSON:</p> <p>23 Q. Doctor, if detect is better</p> <p>24 language than look for, why didn't you say</p> <p>25 it the first time? 11:04</p>	<p style="text-align: right;">Page 104</p> <p>1 et cetera, I'm sure that there was</p> <p>2 content sentences or even contexts</p> <p>3 that were picked up directly or</p> <p>4 indirectly to state these facts, these</p> <p>5 very simple background facts in the 11:05</p> <p>6 first report. And then going through</p> <p>7 the second report, revising it for, as</p> <p>8 I said, grammatical or stylistic or,</p> <p>9 even just in this case, making it a</p> <p>10 bit more technical. A variety of 11:05</p> <p>11 changes were made.</p> <p>12 I certainly didn't take the time</p> <p>13 to review, nor was I given a compare</p> <p>14 of the document of where specific</p> <p>15 sentences may or may not have been 11:06</p> <p>16 pulled from the first time, to then go</p> <p>17 in and specifically correct them.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. Actually at your deposition, which</p> <p>20 you testified that you have reviewed, my 11:06</p> <p>21 colleague pointed you to the plagiarized</p> <p>22 sentences, didn't she?</p> <p>23 ATTORNEY O'DELL: Objection.</p> <p>24 Misstates his prior report and</p> <p>25 misstates his prior testimony. 11:06</p>
<p style="text-align: right;">Page 103</p> <p>1 A. I don't have an answer as to why I</p> <p>2 chose any given word.</p> <p>3 Q. How come you and the Mayo Clinic --</p> <p>4 ATTORNEY O'DELL: He's not</p> <p>5 finished, Jessica. 11:04</p> <p>6 BY ATTORNEY DAVIDSON:</p> <p>7 Q. How come you and the Mayo Clinic</p> <p>8 both coincidentally happened to choose the</p> <p>9 less accurate or correct word "look for" the</p> <p>10 first time, but then the second time around, 11:04</p> <p>11 you managed to think of the word "detect"?</p> <p>12 ATTORNEY O'DELL: Object. Counsel</p> <p>13 cut off the witness from answering the</p> <p>14 question previously.</p> <p>15 Dr. Levy, you may complete your 11:05</p> <p>16 prior answer.</p> <p>17 THE WITNESS: When I was asked to</p> <p>18 develop the background material and</p> <p>19 how -- knowing that this report was</p> <p>20 going to be read by people with a 11:05</p> <p>21 wide-ranging backgrounds and not</p> <p>22 specifically peers in the area of</p> <p>23 science, particularly for background</p> <p>24 material. As I was reviewing a wide</p> <p>25 variety of literature, websites, 11:05</p>	<p style="text-align: right;">Page 105</p> <p>1 THE WITNESS: There was discussion</p> <p>2 of this same question for the same</p> <p>3 background information. Again, I had</p> <p>4 asked briefly at that time and would</p> <p>5 ask again -- or I believe I'd asked 11:06</p> <p>6 briefly at that time, if there was a</p> <p>7 question about the accuracy of the</p> <p>8 information, given that I was asked to</p> <p>9 perform a review of the material, not</p> <p>10 synthesize novel conclusions or novel 11:06</p> <p>11 opinions that would fall under that</p> <p>12 same -- the accusation of plagiarism.</p> <p>13 These are, at least in the scientific</p> <p>14 area, widely known simple sentences</p> <p>15 describing basic concepts for 11:07</p> <p>16 introductory materials.</p> <p>17 BY ATTORNEY DAVIDSON:</p> <p>18 Q. Dr. Levy, if a student submits</p> <p>19 sentences that are taken full clock from the</p> <p>20 Mayo Clinic website and Wikipedia, the 11:07</p> <p>21 student is disciplined regardless of whether</p> <p>22 they're accurate because they are</p> <p>23 plagiarized; correct?</p> <p>24 ATTORNEY O'DELL: Object to the</p> <p>25 form. Incomplete hypothetical, 11:07</p>

<p style="text-align: right;">Page 106</p> <p>1 improper characterization of his 2 testimony. 3 You may answer. 4 THE WITNESS: Depends what the 5 student was asked to do. 11:07 6 BY ATTORNEY DAVIDSON: 7 Q. Doctor, why didn't you add proper 8 citations to the Mayo Clinic and Wikipedia 9 in your revised paper? 10 ATTORNEY O'DELL: Objection to the 11:07 11 form. 12 THE WITNESS: Again, I generally 13 did not provide citations for facts 14 that are generally acceptable or basic 15 background information throughout the 11:07 16 report. 17 BY ATTORNEY DAVIDSON: 18 Q. So sitting here today, it is your 19 sworn testimony that you and the Mayo Clinic 20 happened to come up with the words "look 11:08 21 for," "a cell's," and make corrections the 22 first time you wrote your report 23 independently, and that this time you wrote 24 your report -- 25 ATTORNEY DAVIDSON: Leigh, please 11:08</p>	<p style="text-align: right;">Page 108</p> <p>1 the port as I was reading and writing 2 and reading and writing. Same thing 3 in the revisions. It wasn't 4 necessarily the same -- it was the 5 same process. Reading new, changing 11:09 6 terminology, improving flow, five more 7 years of writing experience and just 8 changes in perspective, better 9 grammatical tools, and features like 10 Word to improve flow, et cetera. So 11:09 11 all those things come to bear. 12 BY ATTORNEY DAVIDSON: 13 Q. Are you aware that the proper 14 procedure in the scientific community and 15 scientific literature, even for basic 11:09 16 concepts, when you take a sentence from a 17 website is to attribute that sentence to the 18 website? 19 ATTORNEY O'DELL: Objection to the 20 form. 11:09 21 THE WITNESS: It certainly depends 22 on the context. 23 BY ATTORNEY DAVIDSON: 24 Q. What is your basis for saying it 25 depends on the context? 11:10</p>
<p style="text-align: right;">Page 107</p> <p>1 stop whispering. 2 ATTORNEY O'DELL: (Inaudible.) 3 BY ATTORNEY DAVIDSON: 4 Q. And at this time you wrote your 5 report, you changed it to "detect," 11:08 6 "cellular" and "correct," independently of 7 the plagiarism allegations? That's your 8 sworn testimony sitting here today? 9 ATTORNEY O'DELL: First, I did not 10 say a word; so don't mischaracterize 11:08 11 what's happening on the record. 12 Second, I object to the question. It 13 misstates his prior testimony, his 14 prior report. 15 If you understand the question, 11:08 16 Dr. Levy, you may answer. 17 THE WITNESS: No. I understand 18 the question. I just want to clarify 19 that through the review and reading of 20 a wide variety of sources, which I'm 11:08 21 sure included the Mayo Clinic, 22 Wikipedia, and other sources, it's 23 certainly possible and plausible that 24 the wording and context on some of 25 those sources was carried over into 11:09</p>	<p style="text-align: right;">Page 109</p> <p>1 A. Because in this specific report, 2 the request was to perform a review and 3 provide that summary. The instructions 4 didn't also include to be sure that every 5 fact and every statement was cited 11:10 6 specifically and comprehensively of wherever 7 that may have come from, whether it be 8 generally accepted or not. 9 So this report was written -- this 10 report was meant to convey information 11:10 11 representing the state of knowledge at that 12 time. And as is the updated reports do much 13 the same thing. 14 Q. Is it your understanding that the 15 standards for academic honesty are different 11:10 16 in an expert report in court than they are 17 for scientific publication? 18 ATTORNEY O'DELL: Object to the 19 form. Misstates his testimony. 20 THE WITNESS: Could you say the 11:11 21 question again or I can look at the -- 22 ATTORNEY DAVIDSON: Court 23 Reporter, can you repeat it? 24 THE WITNESS: I see it on the 25 screen here. 11:11</p>

<p style="text-align: right;">Page 110</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. You have a screen in front of you</p> <p>3 with the questions?</p> <p>4 ATTORNEY O'DELL: He has realtime.</p> <p>5 THE WITNESS: I'm not aware of 11:11</p> <p>6 what the standards for academic</p> <p>7 honesty are in expert reports and how</p> <p>8 they may be different than scientific</p> <p>9 literature.</p> <p>10 BY ATTORNEY DAVIDSON: 11:11</p> <p>11 Q. Do you have a view that they are</p> <p>12 different or the same?</p> <p>13 A. Since I don't know what the</p> <p>14 standards are for expert reports, I don't</p> <p>15 have an answer. 11:11</p> <p>16 Q. If you were writing a paper for a</p> <p>17 scientific journal and it had a sentence</p> <p>18 taken from the Mayo Clinic website, would</p> <p>19 you cite the Mayo Clinic website?</p> <p>20 ATTORNEY O'DELL: Object to the 11:12</p> <p>21 form.</p> <p>22 THE WITNESS: It would depend on</p> <p>23 the sentence. Again, generally</p> <p>24 acceptable background fact that's been</p> <p>25 known in the literature, then perhaps 11:12</p>	<p style="text-align: right;">Page 112</p> <p>1 the Mayo Clinic?</p> <p>2 ATTORNEY O'DELL: Object to the</p> <p>3 form. Asked and answered.</p> <p>4 THE WITNESS: As I explained,</p> <p>5 generally acceptable facts or 11:13</p> <p>6 materials that are not in question,</p> <p>7 that are not being developed or</p> <p>8 synthesized as novel material for that</p> <p>9 scientific paper, then I would not</p> <p>10 give concern to the form or source of 11:13</p> <p>11 every specific sentence and make sure</p> <p>12 that there is not a copy of a sentence</p> <p>13 that's in the same wording or similar</p> <p>14 wording on the internet, particularly</p> <p>15 sources like Wikipedia which pull 11:13</p> <p>16 from -- anyone can add or take away</p> <p>17 material. From any source.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. Is the fact that anyone can add or</p> <p>20 take away material from Wikipedia makes it 11:13</p> <p>21 all the more dangerous to plagiarize from</p> <p>22 there, doesn't it?</p> <p>23 ATTORNEY O'DELL: Object to the</p> <p>24 form. Misstates his prior report,</p> <p>25 misstates his testimony from his 11:14</p>
<p style="text-align: right;">Page 111</p> <p>1 not. I would say the more informal</p> <p>2 language that may generally be</p> <p>3 involved in a website similar to this</p> <p>4 first draft, certainly that would be</p> <p>5 unlikely that I would include that in 11:12</p> <p>6 a scientific paper.</p> <p>7 BY ATTORNEY DAVIDSON:</p> <p>8 Q. It's unlikely that you would copy</p> <p>9 the Mayo Clinic, or it's unlikely that if</p> <p>10 you copy the Mayo Clinic, you wouldn't cite 11:12</p> <p>11 it?</p> <p>12 ATTORNEY O'DELL: Object to the</p> <p>13 form. Misstates his testimony.</p> <p>14 THE WITNESS: It's unlikely that I</p> <p>15 would use a more conversational or 11:12</p> <p>16 informal tone in a scientific paper.</p> <p>17 BY ATTORNEY DAVIDSON:</p> <p>18 Q. If you were to use the language of</p> <p>19 the Mayo Clinic in the scientific paper, my</p> <p>20 question is: Would you cite it? 11:12</p> <p>21 A. Again, I said it depends on how the</p> <p>22 material -- the specific material.</p> <p>23 Q. Is there any circumstance in which</p> <p>24 you would use direct language from the Mayo</p> <p>25 Clinic in a scientific paper and not cite 11:13</p>	<p style="text-align: right;">Page 113</p> <p>1 previous deposition, and misstates</p> <p>2 what he just said.</p> <p>3 THE WITNESS: Correct. It could</p> <p>4 also be that somebody puts in</p> <p>5 Wikipedia content that they 11:14</p> <p>6 plagiarized from somewhere else, and</p> <p>7 then we get into a circular argument</p> <p>8 of who said it first.</p> <p>9 BY ATTORNEY DAVIDSON:</p> <p>10 Q. Is it your testimony that the 11:14</p> <p>11 language you copied from Wikipedia was</p> <p>12 actually language you put into Wikipedia?</p> <p>13 ATTORNEY O'DELL: Objection to the</p> <p>14 form. Misstates his prior report, his</p> <p>15 prior testimony, and what he just said 11:14</p> <p>16 a moment ago.</p> <p>17 THE WITNESS: I guess do you</p> <p>18 want -- should we go to the specific</p> <p>19 sentences from Wikipedia? Then we can</p> <p>20 discuss that. 11:14</p> <p>21 BY ATTORNEY DAVIDSON:</p> <p>22 Q. Is it your testimony that any of</p> <p>23 the language in your expert report was</p> <p>24 language that you had placed in Wikipedia?</p> <p>25 A. No, I'm not making that testimony. 11:14</p>

<p style="text-align: right;">Page 114</p> <p>1 Q. Okay. Have you had the opportunity 2 since your last deposition to figure out why 3 you and Dr. Zelikoff had identical language 4 in your original reports?</p> <p>5 ATTORNEY O'DELL: Let me just -- 11:14 6 object to the form. Jessica, you're 7 reviewing his prior testimony, and as 8 you know, this deposition is for new 9 material. If you want to ask has he 10 done anything since, I think that's a 11:15 11 fair question. If you want to go back 12 through that subject matter and that 13 testimony, that's not in keeping with 14 the order, as you know.</p> <p>15 ATTORNEY DAVIDSON: Hey, Leigh, 11:15 16 what was my question?</p> <p>17 ATTORNEY O'DELL: I heard your 18 question, and I made my objection.</p> <p>19 ATTORNEY DAVIDSON: Okay. I don't 20 think you heard my question. 11:15</p> <p>21 ATTORNEY O'DELL: I do believe I 22 did.</p> <p>23 ATTORNEY DAVIDSON: It was not 24 objectionable. If you heard my 25 question, your objection was 11:15</p>	<p style="text-align: right;">Page 116</p> <p>1 ATTORNEY O'DELL: He just answered 2 the question. He just said that.</p> <p>3 BY ATTORNEY DAVIDSON:</p> <p>4 Q. You don't recall being questioned 5 about similarities in your report and 11:16 6 Dr. Zelikoff's report?</p> <p>7 A. I recall generally. I don't recall 8 the specific language that was asked.</p> <p>9 Q. I see.</p> <p>10 Did you call Dr. Zelikoff after 11:16 11 your deposition and say: Hey, how come your 12 report and my report had the same language?</p> <p>13 ATTORNEY O'DELL: Object to the 14 form.</p> <p>15 THE WITNESS: I did not make a 11:17 16 call.</p> <p>17 BY ATTORNEY DAVIDSON:</p> <p>18 Q. Did you go to plaintiff's counsel 19 and say: Hey, what the heck, why did she 20 copy my report? 11:17</p> <p>21 ATTORNEY O'DELL: Objection to the 22 question.</p> <p>23 Do not respond to that question as 24 it seeks communications between 25 counsel and yourself. 11:17</p>
<p style="text-align: right;">Page 115</p> <p>1 frivolous.</p> <p>2 BY ATTORNEY DAVIDSON:</p> <p>3 Q. Doctor, since you have the realtime 4 in front of you, I assume I don't need to 5 repeat my question. Can you answer it? 11:15 6 A. So you said Dr. Sell? That's 7 what's on the realtime.</p> <p>8 Q. Zelikoff.</p> <p>9 A. I don't recall Dr. Zelikoff's 10 report or seeing it. 11:15</p> <p>11 Q. That's not my question. My 12 question is you did recall -- you told me 13 that you reread your deposition. You do 14 recall that at your last deposition, you 15 were asked why there was language identical 11:16 16 in your report and Dr. Zelikoff's report.</p> <p>17 My question is: Have you had an 18 opportunity, since your deposition in 2019, 19 to conduct any sort of investigation into 20 why your report and Dr. Zelikoff's report 11:16 21 had the same language in it?</p> <p>22 A. So I have not specifically 23 conducted that investigation, nor do I 24 recall that specific language.</p> <p>25 Q. You don't recall that testimony? 11:16</p>	<p style="text-align: right;">Page 117</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. So your testimony is that you took 3 no steps to determine why you and 4 Dr. Zelikoff had the same language in your 5 expert reports after learning about that at 11:17 6 your last deposition; correct?</p> <p>7 ATTORNEY O'DELL: Objection to the 8 form. Misstates the prior testimony.</p> <p>9 BY ATTORNEY DAVIDSON:</p> <p>10 Q. Is that correct, Doctor? 11:17 11 A. I've not reached out to 12 Dr. Zelikoff for any reason.</p> <p>13 Q. At your last deposition, you were 14 asked about two sentences from your report 15 that were identical to language from a 2002 11:18 16 article by Coussens called Inflammation in 17 Cancer.</p> <p>18 Is there a reason why you didn't 19 add a citation to Coussens' Inflammation in 20 Cancer in your amended report? 11:18</p> <p>21 A. No, no specific reason. Do you 22 have those sentences -- is that available as 23 an exhibit? Maybe I'll be able to give you 24 a better answer.</p> <p>25 Q. I think you answered my question. 11:18</p>

<p style="text-align: right;">Page 118</p> <p>1 Are you offering any opinions about</p> <p>2 asbestos?</p> <p>3 A. I'm not sure I understand your</p> <p>4 question. Am I offering any opinions about</p> <p>5 specifically asbestos in isolation or 11:19</p> <p>6 asbestos in the context of this bio -- of</p> <p>7 the biological plausibility?</p> <p>8 Q. Either one.</p> <p>9 A. I think my report contains an</p> <p>10 opinion as to the totality of the components 11:19</p> <p>11 within talc, of which asbestos is one. If</p> <p>12 that aligns with your question, then yes,</p> <p>13 I'm offering -- but I'm offering an opinion</p> <p>14 on the totality of talc and its components.</p> <p>15 I have not performed an analysis to 11:19</p> <p>16 specifically break apart the relative</p> <p>17 contributions of any components that may or</p> <p>18 may not be present in talc.</p> <p>19 Q. Are you offering an opinion that</p> <p>20 Johnson's Baby Powder contained talc? 11:20</p> <p>21 ATTORNEY O'DELL: Object to the</p> <p>22 form.</p> <p>23 BY ATTORNEY DAVIDSON:</p> <p>24 Q. I'm sorry. That Johnson's Baby</p> <p>25 Powder contained asbestos. Sorry. 11:20</p>	<p style="text-align: right;">Page 120</p> <p>1 form.</p> <p>2 THE WITNESS: I'm only able to</p> <p>3 review the materials that I have</p> <p>4 available.</p> <p>5 BY ATTORNEY DAVIDSON: 11:21</p> <p>6 Q. And you also didn't ask for</p> <p>7 additional materials; correct?</p> <p>8 ATTORNEY O'DELL: Object to the</p> <p>9 form.</p> <p>10 THE WITNESS: Did I ask for 11:21</p> <p>11 additional material specifically that</p> <p>12 refutes Dr. Longo's report?</p> <p>13 BY ATTORNEY DAVIDSON:</p> <p>14 Q. Uh-huh.</p> <p>15 A. No, I didn't make that request. I 11:21</p> <p>16 guess I have not generally made the request</p> <p>17 for anything that would be in the negative</p> <p>18 in the sense that I also didn't ask for</p> <p>19 other reports that support Dr. Longo's</p> <p>20 testimony or his report either. 11:22</p> <p>21 Q. You're also not offering any</p> <p>22 opinions in 2024 with respect to cleavage</p> <p>23 fragments or fibrous talc; correct?</p> <p>24 ATTORNEY O'DELL: That's a -- in</p> <p>25 2024, is that what your question was? 11:22</p>
<p style="text-align: right;">Page 119</p> <p>1 ATTORNEY O'DELL: Again, Jessica,</p> <p>2 this goes back to language that was</p> <p>3 included in his 2018 report. If you</p> <p>4 have something new you want to ask</p> <p>5 him, he's certainly here to answer 11:20</p> <p>6 your questions, but he's not here to</p> <p>7 go back over previous aspects of his</p> <p>8 report that have not been amended or</p> <p>9 changed.</p> <p>10 BY ATTORNEY DAVIDSON: 11:20</p> <p>11 Q. Dr. Levy, are you offering the</p> <p>12 opinion in 2024 that Johnson's Baby Powder</p> <p>13 contained asbestos?</p> <p>14 A. I wasn't asked to provide an</p> <p>15 opinion on whether Johnson's Baby Powder 11:20</p> <p>16 contained asbestos.</p> <p>17 Q. Excellent. That will shorten your</p> <p>18 deposition today.</p> <p>19 A. My only opportunity in that subject</p> <p>20 has been the review of the other reports 11:20</p> <p>21 from Dr. Longo primarily.</p> <p>22 Q. And we established that you did not</p> <p>23 conduct a complete review because you never</p> <p>24 looked at the responsive reports; correct?</p> <p>25 ATTORNEY O'DELL: Objection to the 11:21</p>	<p style="text-align: right;">Page 121</p> <p>1 ATTORNEY DAVIDSON: I added 2024</p> <p>2 so you wouldn't tell me that it was</p> <p>3 asked in 2019. I need to know what</p> <p>4 the current opinions are.</p> <p>5 ATTORNEY O'DELL: As you know, his 11:22</p> <p>6 opinions are outlined in his report.</p> <p>7 ATTORNEY DAVIDSON: Thanks.</p> <p>8 THE WITNESS: Again, my report did</p> <p>9 not attempt to separate any specific</p> <p>10 components or subcomponents or 11:22</p> <p>11 structures within. It was more to</p> <p>12 consider the biological plausibility</p> <p>13 of talc as a whole, the product as a</p> <p>14 whole.</p> <p>15 BY ATTORNEY DAVIDSON: 11:22</p> <p>16 Q. Great. So you don't have separate</p> <p>17 opinions about fragrances or heavy metals</p> <p>18 either?</p> <p>19 ATTORNEY O'DELL: Objection to the</p> <p>20 form. Misstates his prior testimony. 11:23</p> <p>21 THE WITNESS: I mean, I -- again,</p> <p>22 I have opinions on both of those</p> <p>23 subjects, but are we asking about the</p> <p>24 content of the report? So within my</p> <p>25 report, I did not specifically 11:23</p>

<p style="text-align: right;">Page 122</p> <p>1 differentiate the relative risk or 2 other components of any of those 3 things because, again, that wasn't the 4 request, nor did my literature review 5 provide a clear separation of those 11:23 6 subcomponents and then the testing of 7 them relative to cancer. Certainly my 8 opinions based on the review of other 9 materials, including the expert 10 reports of other witnesses, allow me 11:23 11 to generate an opinion in that area. 12 BY ATTORNEY DAVIDSON: 13 Q. What do you mean by you have 14 opinions that are not set forth in your 15 report? 11:24 16 ATTORNEY O'DELL: Objection. 17 That's not what he said. 18 ATTORNEY DAVIDSON: That is what 19 he said. 20 ATTORNEY O'DELL: No, it's not. 11:24 21 THE WITNESS: I said my report had 22 the request of focusing in specific 23 areas, which it does. But you're 24 asking -- you didn't ask if -- you 25 asked if I have an opinion. 11:24</p>	<p style="text-align: right;">Page 124</p> <p>1 same opinions he offered in his 2018 2 report. 3 ATTORNEY DAVIDSON: How do you 4 know? How do you know it's the same 5 opinions, Leigh? You're testifying 11:25 6 now. 7 ATTORNEY O'DELL: No, I'm not. 8 I'm just saying you're asking him a 9 general question about heavy metals. 10 And what I'm trying to do, Jessica, 11:25 11 is -- 12 ATTORNEY DAVIDSON: Leigh -- 13 ATTORNEY O'DELL: What I'm trying 14 to do is make clear that the purpose 15 of this deposition is for new 11:25 16 materials. And so for you to ask -- 17 ATTORNEY DAVIDSON: He just told 18 me that he has opinions on heavy 19 metals and fragrances that aren't in 20 his report. 11:25 21 ATTORNEY O'DELL: He did not say 22 that. 23 ATTORNEY DAVIDSON: Yes, he did. 24 ATTORNEY O'DELL: He said they 25 were in his report. 11:25</p>
<p style="text-align: right;">Page 123</p> <p>1 BY ATTORNEY O'DELL: 2 Q. Do you plan to offer any expert 3 opinions at trial besides those set forth in 4 your report? 5 A. I guess it depends on what 11:24 6 questions I'm asked. If those questions 7 come for subjects that are outside the 8 report but it's an area that I can provide 9 an opinion on based on my background and 10 experience or based on other information, I 11:24 11 suppose I would have to ask for 12 clarification on that from a procedural 13 perspective. I guess I don't -- I guess I 14 don't know what is fair game outside of 15 what's contained in a report at trial. 11:24 16 Q. When you say you have opinions on 17 heavy metals and fragrances, what are those 18 opinions? 19 ATTORNEY O'DELL: Objection to the 20 form. He said he had it -- he 11:25 21 expressed it in his report, and those 22 are -- 23 ATTORNEY DAVIDSON: He said he has 24 opinions. 25 ATTORNEY O'DELL: Those are the 11:25</p>	<p style="text-align: right;">Page 125</p> <p>1 ATTORNEY DAVIDSON: That they 2 weren't in his report. 3 ATTORNEY O'DELL: They are in his 4 report. It's on page 18. 5 ATTORNEY DAVIDSON: That's not 11:26 6 what he said. He said he has opinions 7 on heavy metals and fragrance that are 8 not in his report. 9 ATTORNEY O'DELL: You're 10 intentionally trying to confuse what 11:26 11 he was explaining. 12 ATTORNEY DAVIDSON: Intentionally? 13 I'm intentionally telling you he said 14 aren't when I thought I heard are? 15 Are you out of your mind? He said 11:26 16 aren't. 17 ATTORNEY O'DELL: You're trying -- 18 ATTORNEY DAVIDSON: I'm trying? 19 Leigh, I heard him say aren't. If he 20 said are in his report, great. Then 11:26 21 we can move on. 22 ATTORNEY O'DELL: Just ask the 23 question, Jessica. 24 ATTORNEY DAVIDSON: I thought he 25 said aren't. 11:26</p>

<p style="text-align: right;">Page 126</p> <p>1 ATTORNEY O'DELL: Why don't you 2 ask the question. 3 ATTORNEY DAVIDSON: The problem, 4 Leigh, is that you are over and over 5 telling Dr. Levy what you want him to 11:26 6 say. This has been ongoing. 7 ATTORNEY O'DELL: That is 8 incorrect. 9 ATTORNEY DAVIDSON: Since 10 10 o'clock in the -- 12 o'clock. I'm 11:26 11 confused by the time zones. 12 For two hours, you have been 13 trying to feed testimony to Dr. Levy 14 in the most transparent way I've ever 15 seen. 11:26 16 ATTORNEY O'DELL: That's 17 incorrect. 18 BY ATTORNEY DAVIDSON: 19 Q. Dr. Levy, maybe I misunderstood. 20 So let's let Dr. Levy speak for 11:26 21 himself. He's a grown man. 22 Dr. Levy, what were you trying to 23 say? And I apologize if I misunderstood. I 24 was trying to sort of figure out what you're 25 not talking about so we can shorten this 11:27</p>	<p style="text-align: right;">Page 128</p> <p>1 of background, but your opinions are about 2 talc as a whole? 3 A. Yes, my opinions are -- were 4 focusing on the totality of the product. I 5 wasn't asked to offer an opinion breaking 11:28 6 those things apart. 7 Q. Okay. Great. That will shorten 8 this deposition. 9 ATTORNEY DAVIDSON: Leigh, I was 10 not trying to confuse anything. I was 11:28 11 absolutely certain he said not when 12 you heard him say was. 13 ATTORNEY O'DELL: Maybe the 14 vagaries of a Zoom deposition and not 15 being able to hear; so maybe that's 11:28 16 what caused the confusion. 17 ATTORNEY DAVIDSON: I would never 18 do something like that. I want that 19 to be clear. 20 Why don't we take -- it's been 11:29 21 about an hour. I can't remember if we 22 came back at 1:30. Why don't we take 23 ten minutes or five. Seven? 24 ATTORNEY O'DELL: Yeah, five, 25 seven minutes, that would be great. 11:29</p>
<p style="text-align: right;">Page 127</p> <p>1 deposition because it's three hours later 2 here. So maybe I did misunderstand you. 3 Why don't you explain what you were trying 4 to say. 5 A. You were asking about fragrance 11:27 6 specifically separate from heavy metals, 7 specifically separate from other components 8 of talc. 9 Q. Correct. 10 A. And I was trying to explain that I 11:27 11 had, in detail, considered that as the 12 totality of the product. In my report, 13 there are subreferences to other materials, 14 Dr. Crowley specifically, where there was 15 other opinions offered in more detail about 11:27 16 the components such as fragrances and their 17 potential to have carcinogenic compounds and 18 heavy metals and their known 19 carcinogenicity. But I was not attempting 20 to tease those out and offer a relative risk 11:27 21 or a relative contribution to those -- 22 meaning prioritizing which is the most 23 significant to least significant -- because 24 that wasn't part of my analysis. 25 Q. So you mentioned them as some sort 11:28</p>	<p style="text-align: right;">Page 129</p> <p>1 (Recess taken from 11:29 a.m. to 2 11:40 a.m.) 3 BY ATTORNEY DAVIDSON: 4 Q. Doctor, can you cite any evidence 5 to support the theory that environmental 11:41 6 carcinogens increase the likelihood that 7 BRCA1 or 2 mutation will lead to ovarian 8 cancer? 9 A. I'm just rereading your question. 10 Q. Okay. 11:41 11 A. So the -- and this wasn't part of 12 the report, but there's an interesting 13 observation relative to BRCA1 and 2 14 mutations that was made by the discoverer of 15 those mutations, Mary Claire King, in 1990. 11:41 16 And that is, as time has gone on, the impact 17 or the relative risk that BRCA1 and 2 18 mutations impart for both breast and ovarian 19 cancer has increased, meaning the age has 20 gotten younger, but it's not known at this 11:42 21 time whether that's due to environmental 22 factors or whether that's due to things like 23 less women getting pregnant or women having 24 children at later ages. 25 So more research needs to be done, 11:42</p>

<p style="text-align: right;">Page 130</p> <p>1 but there does appear to be an association 2 that BRCA1 and 2 mutations are increasing in 3 their impact in cancer risk as time goes on. 4 That's, again, broadly summarizing that 5 literature. 11:42 6 Q. But are you aware of any scientific 7 evidence that an environmental carcinogen 8 like talc would increase the likelihood that 9 a BRCA1 or 2 mutation would lead to ovarian 10 cancer? 11:42 11 A. So they're not -- so indirectly 12 the -- and what I was asked to do is, in the 13 provision of that evidence, indirectly there 14 are kind of two different components to a 15 complex outcome being cancer. So BRCA1 and 11:43 16 2 inhibit DNA repair. That inhibition of 17 DNA repair would then likely make external 18 factors, regardless of source, whether it be 19 talc or other sources. Your initiation 20 events or other things can be -- it's kind 11:43 21 of -- or maybe an analogy is the BRCA1 and 2 22 mutation are like putting a snowball at the 23 top of the hill, and that external insult, 24 whether it be talc or other carcinogens, can 25 kind of help kick that snowball down the 11:43</p>	<p style="text-align: right;">Page 132</p> <p>1 THE WITNESS: Not directly. 2 BY ATTORNEY DAVIDSON: 3 Q. Is it your opinion that talc causes 4 malignant transformation in normal human 5 ovarian cells? 11:45 6 A. As I think we mentioned before, I 7 wasn't asked to provide an opinion on 8 causation; so I would not use the word 9 cause. 10 Q. Are you providing an opinion on 11:45 11 malignant transformation? 12 A. My opinions are based on the 13 totality of the process. Can talc create an 14 environment that can contribute to malignant 15 transformation? 11:45 16 I am aware of Buz'Zard. We can 17 find the exact reference to give you the 18 specific answer, but there have been studies 19 both in vivo and more so in vitro looking at 20 the role that talc may play in malignant 11:46 21 transformation. 22 Q. Did the Buz'Zard paper show 23 malignant transformation? 24 A. I believe markers of that. I think 25 that was an in vitro study. 11:46</p>
<p style="text-align: right;">Page 131</p> <p>1 hill. 2 Q. But my question is -- I understand 3 the theory. 4 My question is: Can you point to 5 any scientific literature supporting that 11:43 6 theory? 7 ATTORNEY O'DELL: Objection to 8 form. 9 THE WITNESS: There's been -- I'm 10 trying to think if any of the studies 11:44 11 had BRCA1 and 2. I don't recall if 12 the studies had that as a -- had the 13 BRCA1 and 2 mutational statuses. 14 Certainly the epidemiology studies I 15 don't think did, but the remainder of 11:44 16 the studies, I don't recall seeing any 17 direct literature to answer that 18 question. 19 BY ATTORNEY DAVIDSON: 20 Q. Similarly, are you -- can you point 11:44 21 to any scientific literature supporting the 22 theory that carcinogens would increase the 23 penetrants of Lynch syndrome mutations? 24 ATTORNEY O'DELL: Object to the 25 form. 11:44</p>	<p style="text-align: right;">Page 133</p> <p>1 Q. Has any scientist ever shown that 2 talc causes malignant transformation? 3 ATTORNEY O'DELL: Object to the 4 form, other than what he just 5 testified to. 11:46 6 THE WITNESS: Sorry. Your 7 question was has any scientist shown 8 that talc causes -- 9 BY ATTORNEY DAVIDSON: 10 Q. Ever shown that talc causes 11:46 11 malignant transformation in ovarian cells. 12 A. In in vitro experiments, as far as 13 the ability of those in vitro experiments to 14 mimic malignant transformation, yes, there 15 have been studies that have shown that. I 11:46 16 am not aware of a study that has shown that 17 in vivo. 18 Q. What studies have shown that talc 19 can cause malignant transformation in 20 ovarian cells in vitro? 11:47 21 A. Let me look to get you the 22 reference. I'm trying to think where that 23 was. 24 So the Harper 2023, there's the 25 Buz'Zard and Lau, Shukla, et al. This is a 11:47</p>

<p style="text-align: right;">Page 134</p> <p>1 summary of references; so I know that these 2 are the in vitro studies. Fletcher 3 described induction of point mutations after 4 exposure. 5 It would be fair -- yeah. So those 11:48 6 are the -- and I think the Harper described 7 the neoplastic transformation. Whether you 8 consider that malignant transformation is, 9 of course, debatable. 10 Q. So I'm not sure what your answer 11:48 11 is. I just want to make sure I have a clean 12 answer to my question. 13 What papers would you say show 14 malignant transformation in vitro to ovarian 15 cells? 11:48 16 ATTORNEY O'DELL: Objection to the 17 form. Asked and answered. 18 THE WITNESS: So as I said, if 19 there's been -- the paper's focused on 20 neoplastic transformation. So you're 11:48 21 asking about malignant transformation. 22 Are you suggesting there's a 23 difference, or are you interested in 24 if there's a difference, or are you 25 looking for the change in cellular 11:49</p>	<p style="text-align: right;">Page 136</p> <p>1 THE WITNESS: Again, I'd say we 2 can answer that question as we look at 3 the papers. 4 BY ATTORNEY DAVIDSON: 5 Q. Is there a reason why you don't 11:50 6 discuss Harper 2023 in your report? 7 A. I'd have to look at Harper again. 8 No specific reason comes to mind. I'd have 9 to look at the paper to either remind myself 10 why or indicate. 11:50 11 Q. It's on page 7 of your materials 12 and data considered list, Harper -- I think 13 you were just -- when I just asked you that 14 question, were you looking at your materials 15 and data considered list? 11:50 16 A. (No verbal response.) 17 Q. Sir? 18 A. Yes. 19 Q. Is that what you were looking at? 20 I assume that's what you were looking at to 11:51 21 answer my prior question; correct? 22 A. That's correct. 23 Q. And you were looking at the Harper 24 paper published in Minerva Obstetrics and 25 Gynecology 2023; correct? 11:51</p>
<p style="text-align: right;">Page 135</p> <p>1 behavior based on exposure to talc 2 that has the markers that are similar 3 to or would be considered in the same 4 biological process as a transformative 5 event? 11:49 6 BY ATTORNEY DAVIDSON: 7 Q. If you prefer to use the term 8 "neoplastic transformation," I'm happy to 9 ask the question as: What papers do you 10 believe have shown that talc causes 11:49 11 neoplastic transformation in normal human 12 ovarian cells? 13 A. I'd have to look back at the papers 14 in more detail to make sure specifically 15 when you're saying "normal human ovarian 11:49 16 cells." 17 Q. Do you know that -- we'll look at 18 the papers. I promise. 19 But do you know whether there are 20 any papers have shown that talc causes 11:50 21 malignant transformation or neoplastic 22 transformation in normal human ovarian 23 cells? 24 ATTORNEY O'DELL: Object to the 25 form. 11:50</p>	<p style="text-align: right;">Page 137</p> <p>1 ATTORNEY O'DELL: Objection to the 2 form. 3 THE WITNESS: No. 4 BY ATTORNEY DAVIDSON: 5 Q. You were looking at the entry in 11:51 6 your materials and data considered for 7 Harper 2023 Minerva Obstetrics and 8 Gynecology, no? 9 A. I wasn't looking at that specific 10 entry. 11:51 11 Q. When you said Harper 2023, what 12 were you reading from? 13 A. I was looking at notes and then my 14 report. 15 Q. What notes were you looking at? 11:51 16 A. The ones we were talking about 17 earlier. 18 ATTORNEY DAVIDSON: Okay. Let's 19 take a break. Let's go off the 20 record. 11:51 21 (Recess taken from 11:51 a.m. to 22 12:11 p.m.) 23 BY ATTORNEY DAVIDSON: 24 Q. Dr. Levy, I'm confused a little bit 25 because -- so when I was asking you what 12:11</p>

<p style="text-align: right;">Page 138</p> <p>1 articles support -- provide evidence that 2 talc can cause malignant transformation, 3 ovarian cells, you pointed to three papers. 4 And I said: Were you looking at your 5 materials considered when you cited those 12:11 6 papers? I thought you said: No, I was 7 looking at my notes. But during the break, 8 counsel produced your notes and your notes 9 don't mention those papers. So now I'm just 10 confused, and I'm afraid I misunderstood. 12:12 11 ATTORNEY O'DELL: Objection to 12 form. 13 BY ATTORNEY DAVIDSON: 14 Q. So can you explain what you were 15 looking at when you listed Harper 2023, 12:12 16 Buz'Zard, Lau, and Fletcher? 17 A. I mentioned Buz'Zard, Lau, and 18 Fletcher and I misread Harper. I had pulled 19 it up on the materials list and in my 20 report. If you look on page 15 of the 12:12 21 report, that section is what I was looking 22 at when I was answering the question. You 23 see it says Fletcher Harper 2019. But then 24 the Harper -- it was just my mistake. I 25 read Fletcher, Harper as two papers; so 12:12</p>	<p style="text-align: right;">Page 140</p> <p>1 two separate papers? 2 A. No. There's a paper that the 3 authors are Fletcher and Harper, and there's 4 a separate paper where Harper is the first 5 author. When I was looking between the 12:13 6 report and the materials cited list, I 7 looked at -- my reference to Fletcher and 8 Harper 2019 as two separate papers. When I 9 looked to get the complete reference in the 10 material list rather than the bibliography. 12:14 11 Harper -- 12 Q. It's your testimony -- sorry. 13 A. Harper 2023 is on the materials 14 cited list, but it's not referenced in the 15 report. 12:14 16 Q. But it's your testimony that both 17 Harper 2023 and Fletcher 2019 show 18 neoplastic transformation in normal ovarian 19 cells? 20 ATTORNEY O'DELL: Objection to 12:14 21 form. 22 THE WITNESS: No. 23 BY ATTORNEY DAVIDSON: 24 Q. What's your -- 25 A. We were discussing more about in 12:14</p>
<p style="text-align: right;">Page 139</p> <p>1 that's Fletcher and Harper as one, and then 2 Harper coincidentally is the 2023. So it's 3 a misunderstanding. 4 Q. So when you said you were looking 5 at your notes, you weren't actually looking 12:12 6 at your notes? 7 ATTORNEY O'DELL: Objection. 8 THE WITNESS: No. I said I was 9 looking at materials and my notes. It 10 was not either/or. I was looking at 12:13 11 those items. 12 BY ATTORNEY DAVIDSON: 13 Q. So where were you reading Harper 14 2023 from because it's not in your paper, 15 and it's not on your notes? 12:13 16 A. No. I read Harper on page 15 of 17 the report. The materials referenced list 18 is an easier one to look at as far as 19 finding a reference; so I turned to that. 20 That's why I said the confusion is Harper 12:13 21 2023 is a separate paper from Fletcher and 22 Harper. So when I stated Fletcher and 23 Harper as two separate papers, it was my 24 error. 25 Q. Fletcher and Harper are or are not 12:13</p>	<p style="text-align: right;">Page 141</p> <p>1 vitro studies, and I was giving references 2 to some of the in vitro studies like the 3 Buz'Zard, the Fletcher, and others. So it 4 wasn't specifically the neoplastic 5 transformation. 12:14 6 Then in looking at the Harper, of 7 course, the title of that paper is Malignant 8 Transformation of Human Primary Normal 9 Ovarian Epithelial Cells. Since these are 10 all from the same laboratory group, it was 12:15 11 just a confusion between telling you 12 Fletcher and Harper is two papers, and then 13 looking at Harper and then seeing that in 14 the title. So it answers the two different 15 questions. 12:15 16 Q. Let's just start over. I'm trying 17 to find out: You are offering an opinion on 18 biological plausibility. I want to 19 understand whether it is your testimony that 20 any scientific papers have shown that talc 12:15 21 can cause neoplastic transformation in 22 ovarian cells, and if so, what those papers 23 are. 24 ATTORNEY O'DELL: Object to the 25 form. Asked and answered. 12:15</p>

<p style="text-align: right;">Page 142</p> <p>1 THE WITNESS: So I answered that 2 question with there's a number of 3 papers that show the in vitro effects 4 of talc on cells with various markers 5 that could be interpreted as 12:15 6 transformation. The only paper that 7 directly has that in the title is the 8 Harper 2023 paper, but that is not 9 referenced in the report. 10 BY ATTORNEY DAVIDSON: 12:16 11 Q. I'm not asking whether it's in the 12 title. 13 I'm asking: Has any scientist 14 shown that talc can cause neoplastic 15 transformation in ovarian cells? 12:16 16 A. The Harper paper. 17 Q. And is it your testimony that the 18 Harper paper shows neoplastic transformation 19 in ovarian cells? 20 A. Correct. 12:16 21 Q. Did you evaluate whether the Harper 22 paper is reliable? 23 A. In what way? 24 Q. In any way. 25 A. Not any more so than I did any of 12:17</p>	<p style="text-align: right;">Page 144</p> <p>1 A. No, I'm not aware. 2 Q. I take it that you're not aware 3 that one of those peer-reviewed comments 4 refers to the author's conclusions as 5 outrageous? 12:18 6 ATTORNEY O'DELL: Object to the 7 form. Object to the form. Assumes 8 facts not in evidence. If you want to 9 show him something to review, he can 10 read it. 12:18 11 THE WITNESS: I'm not aware. 12 BY ATTORNEY DAVIDSON: 13 Q. You're not aware that the peer 14 reviewer said that the conclusions are not 15 supported by the manuscript's data; correct? 12:18 16 ATTORNEY O'DELL: Object to the 17 form. 18 THE WITNESS: I would have no way 19 of accessing those comments or those 20 reviews. 12:18 21 BY ATTORNEY DAVIDSON: 22 Q. If your lawyers have them, then you 23 would have a way of accessing them; right? 24 ATTORNEY O'DELL: Object to the 25 form. 12:19</p>
<p style="text-align: right;">Page 143</p> <p>1 the other literature review. 2 Q. Are you familiar with Minerva 3 Obstetrics and Gynecology? 4 A. Not in detail. I believe it's an 5 Italian journal, but I'm not -- 12:17 6 Q. Do you know if it's a -- 7 A. No, I'm not familiar with the 8 journal or their policies in detail. 9 Q. Do you know if it's a 10 well-respected journal? 12:17 11 A. I don't know. 12 Q. Do you know whether the Harper 2023 13 paper was rejected by numerous journals 14 prior to its publication? 15 A. I would have no way of knowing 12:17 16 that. 17 Q. Did plaintiff's lawyers provide you 18 with comments from all of the journals that 19 rejected the paper? 20 A. No. 12:17 21 Q. Are you aware that plaintiff's 22 lawyers have peer-reviewed comments heavily 23 criticizing the Harper 2023 paper from 24 reproductive scientists, gynecologic 25 oncology, and PLOS1 scientific journals? 12:18</p>	<p style="text-align: right;">Page 145</p> <p>1 THE WITNESS: I certainly didn't 2 ask the lawyers if they had review 3 comments on the body of literature 4 that I had reviewed. That wouldn't be 5 a standard typical request. 12:19 6 BY ATTORNEY DAVIDSON: 7 Q. And they didn't offer them to you? 8 A. No. For that study or any other 9 study. 10 Q. Do you believe the authors of this 12:19 11 paper had sufficient data to claim a finding 12 of malignancy? 13 A. Again, my earlier question about 14 malignancy versus neoplastic, et cetera. 15 It's a complicated conclusion to derive in 12:19 16 vitro because in vitro is not in vivo. As 17 I'm sure you're now well aware, the process 18 of cells transforming and then becoming 19 malignant and becoming metastatic is quite 20 complex and relies on a number of factors, 12:19 21 including a very complex tumor 22 microenvironment; therefore, most in vitro 23 studies have to rely on markers of that. 24 Now, whether the -- 25 Q. Do you think -- 12:20</p>

<p style="text-align: right;">Page 146</p> <p>1 ATTORNEY O'DELL: Let him finish.</p> <p>2 THE WITNESS: It's really up to</p> <p>3 the authors' and reviewers' opinions</p> <p>4 if those markers represent enough of</p> <p>5 a -- to represent malignant 12:20</p> <p>6 transformation in an in vitro study.</p> <p>7 BY ATTORNEY DAVIDSON:</p> <p>8 Q. Do you think the authors provided</p> <p>9 sufficient data to claim a finding of</p> <p>10 neoplastic transformation? 12:20</p> <p>11 ATTORNEY O'DELL: Objection.</p> <p>12 Asked and answered.</p> <p>13 THE WITNESS: I have no other</p> <p>14 evidence to refute what the authors</p> <p>15 are claiming. 12:20</p> <p>16 BY ATTORNEY DAVIDSON:</p> <p>17 Q. Have you ever submitted an article</p> <p>18 to a peer-reviewed journal and received a</p> <p>19 comment saying that the science cannot be</p> <p>20 trusted? 12:20</p> <p>21 ATTORNEY O'DELL: Objection to the</p> <p>22 form.</p> <p>23 THE WITNESS: No, I have not.</p> <p>24 BY ATTORNEY DAVIDSON:</p> <p>25 Q. Have you ever submitted a paper to 12:20</p>	<p style="text-align: right;">Page 148</p> <p>1 me whether if the authors --</p> <p>2 A. Is your question if the -- if all</p> <p>3 of the content of the paper is false or</p> <p>4 unreliable, could they then draw that</p> <p>5 conclusion? Is that your question? 12:22</p> <p>6 Q. If the science, methodology, and</p> <p>7 data of the paper cannot be trusted, can you</p> <p>8 still draw the conclusion that the authors</p> <p>9 have shown neoplastic transformation?</p> <p>10 ATTORNEY O'DELL: Object to the 12:22</p> <p>11 form. Incomplete hypothetical.</p> <p>12 THE WITNESS: What do you mean by</p> <p>13 "cannot be trusted"? Meaning, needs</p> <p>14 to be confirmed? We're talking about</p> <p>15 a -- so the process of science is 12:22</p> <p>16 continual evaluation and revision to</p> <p>17 observations that are made and</p> <p>18 published. That's the whole spirit of</p> <p>19 peer review.</p> <p>20 BY ATTORNEY DAVIDSON: 12:22</p> <p>21 Q. Do you have sufficient experience</p> <p>22 in cell biology to know whether the science</p> <p>23 and methodology -- whether the methodology</p> <p>24 used in Harper 2023 was appropriate and</p> <p>25 sufficient to find neoplastic 12:23</p>
<p style="text-align: right;">Page 147</p> <p>1 a journal and received a comment that said</p> <p>2 the problems with your submission are too</p> <p>3 numerous to count and the science,</p> <p>4 methodology, and data cannot be trusted?</p> <p>5 ATTORNEY O'DELL: Object to the 12:21</p> <p>6 form.</p> <p>7 THE WITNESS: No, I have not.</p> <p>8 BY ATTORNEY DAVIDSON:</p> <p>9 Q. Do you have enough experience with</p> <p>10 cell biology to know whether the science 12:21</p> <p>11 methodology and data in the Harper 2023</p> <p>12 paper can be trusted?</p> <p>13 A. I would have to review the paper in</p> <p>14 more detail to give you an answer to that</p> <p>15 question. 12:21</p> <p>16 Q. If the science, methodology, and</p> <p>17 data of Harper 2023 cannot be trusted, then</p> <p>18 the authors would not have shown neoplastic</p> <p>19 transformation; correct?</p> <p>20 ATTORNEY O'DELL: Objection to the 12:21</p> <p>21 form. Incomplete hypothetical,</p> <p>22 misstates the record.</p> <p>23 THE WITNESS: I can't answer that.</p> <p>24 BY ATTORNEY DAVIDSON:</p> <p>25 Q. So if the authors -- you can't tell 12:21</p>	<p style="text-align: right;">Page 149</p> <p>1 transformation?</p> <p>2 A. Again, happy to review the paper to</p> <p>3 provide an answer. Generally speaking, yes,</p> <p>4 I have experience -- deep experience in cell</p> <p>5 biology, but I have not -- I would need to 12:23</p> <p>6 relook at the paper to answer that question</p> <p>7 as if my specific experience aligns well</p> <p>8 enough to their methodology to answer that</p> <p>9 question.</p> <p>10 Q. Prior to telling me -- 12:23</p> <p>11 A. I would --</p> <p>12 ATTORNEY O'DELL: Excuse me. Just</p> <p>13 because of Zoom, I don't think you</p> <p>14 heard. He was still answering the</p> <p>15 question. 12:23</p> <p>16 ATTORNEY DAVIDSON: It's very hard</p> <p>17 because he stops and then he suddenly</p> <p>18 starts again. So it's impossible to</p> <p>19 know when he's done.</p> <p>20 ATTORNEY O'DELL: Just give him a 12:23</p> <p>21 moment. He's trying to do the very</p> <p>22 best he can; so if you just give him a</p> <p>23 moment to finish.</p> <p>24 ATTORNEY DAVIDSON: Prior to</p> <p>25 telling you -- 12:23</p>

<p style="text-align: right;">Page 150</p> <p>1 ATTORNEY O'DELL: No, no. He's</p> <p>2 not finished with his answer. Please</p> <p>3 continue.</p> <p>4 BY ATTORNEY DAVIDSON:</p> <p>5 Q. Are you still answering the 12:23</p> <p>6 question?</p> <p>7 A. You two were talking. I didn't</p> <p>8 want to interrupt and start again.</p> <p>9 My ending thought was the same</p> <p>10 comment about whether I had the experience 12:24</p> <p>11 to make that evaluation would need to be</p> <p>12 applied to the reviewers that made the</p> <p>13 statements that you described that were in</p> <p>14 those reviews. Did they have the same</p> <p>15 opportunity to review the paper, and did 12:24</p> <p>16 they have the experience to come to those</p> <p>17 conclusions? Again, this is the entire</p> <p>18 spirit and process of peer review.</p> <p>19 Q. Have you ever been asked to be a</p> <p>20 reviewer for Gynecologic Oncology? 12:24</p> <p>21 A. No, I don't believe so.</p> <p>22 Q. Have you ever been asked to be a</p> <p>23 reviewer for Reproductive Sciences?</p> <p>24 A. No.</p> <p>25 Q. Have you ever been asked to be a 12:24</p>	<p style="text-align: right;">Page 152</p> <p>1 than dosing -- than would be expected</p> <p>2 dosing in in vivo studies. They're</p> <p>3 two different questions.</p> <p>4 The question being asked by this</p> <p>5 paper is: Can talc cause neoplastic 12:25</p> <p>6 transformation? It's a different</p> <p>7 question whether the dosing that</p> <p>8 causes that is physiological or not.</p> <p>9 BY ATTORNEY DAVIDSON:</p> <p>10 Q. Are you familiar with the assay 12:26</p> <p>11 that was used in the study?</p> <p>12 A. I'd need to take a moment to look</p> <p>13 at the paper to remind myself.</p> <p>14 Q. When you read "the paper," did you</p> <p>15 research the assay that was used? 12:26</p> <p>16 A. Again, I'll have to take a moment</p> <p>17 to look.</p> <p>18 Q. I'm asking you: When you read the</p> <p>19 paper, did you go and research the assay?</p> <p>20 ATTORNEY O'DELL: His work on this 12:26</p> <p>21 case has been going on for --</p> <p>22 ATTORNEY DAVIDSON: Leigh --</p> <p>23 ATTORNEY O'DELL: Let me finish.</p> <p>24 His report --</p> <p>25 ATTORNEY DAVIDSON: That's not a 12:26</p>
<p style="text-align: right;">Page 151</p> <p>1 reviewer for PLOS1?</p> <p>2 A. Yes.</p> <p>3 Q. Before telling me that these</p> <p>4 authors found neoplastic transformation, did</p> <p>5 you evaluate what methodology they used? 12:24</p> <p>6 A. In general.</p> <p>7 Q. Before telling me that these</p> <p>8 authors found neoplastic transformation, did</p> <p>9 you assess whether the dose they used is</p> <p>10 likely to ever replicate physiologic dosing? 12:25</p> <p>11 ATTORNEY O'DELL: Dr. Levy, if you</p> <p>12 need to review the paper to remind</p> <p>13 yourself of the dose, it's here. We</p> <p>14 can put it in front of you.</p> <p>15 BY ATTORNEY DAVIDSON: 12:25</p> <p>16 Q. I'm not asking you to review the</p> <p>17 paper.</p> <p>18 I'm asking whether you personally,</p> <p>19 Dr. Levy, considered whether the dose they</p> <p>20 used is likely to ever replicate physiologic 12:25</p> <p>21 dosing?</p> <p>22 ATTORNEY O'DELL: Object to the</p> <p>23 form. Different question.</p> <p>24 THE WITNESS: Routinely dosing in</p> <p>25 in vitro studies is vastly different 12:25</p>	<p style="text-align: right;">Page 153</p> <p>1 proper objection.</p> <p>2 ATTORNEY O'DELL: Well, I believe</p> <p>3 it is. You're asking him define --</p> <p>4 specific questions about in vitro</p> <p>5 study, and he's entitled to look at it 12:26</p> <p>6 if he's going to respond to your</p> <p>7 questions. It's not fair to ask him a</p> <p>8 question in isolation about dose when</p> <p>9 he's asked to look at the paper. He</p> <p>10 has these materials available, and 12:26</p> <p>11 he's going to look at them if he needs</p> <p>12 it to answer your question.</p> <p>13 Dr. Levy, take a moment if you</p> <p>14 need it.</p> <p>15 BY ATTORNEY DAVIDSON: 12:27</p> <p>16 Q. We're not looking at the paper</p> <p>17 right now, Dr. Levy. You can look at the</p> <p>18 paper when Leigh asks you questions.</p> <p>19 ATTORNEY O'DELL: No, no, no.</p> <p>20 He's entitled -- 12:27</p> <p>21 ATTORNEY DAVIDSON: He can look at</p> <p>22 it when you ask him a question about</p> <p>23 it. I'm allowed to ask a question</p> <p>24 about whether he recalls, and he's</p> <p>25 allowed to say no, and then I'm 12:27</p>

<p style="text-align: right;">Page 154</p> <p>1 allowed to move on.</p> <p>2 And we will move on if you don't</p> <p>3 recall.</p> <p>4 BY ATTORNEY DAVIDSON:</p> <p>5 Q. Without looking at the paper, you 12:27</p> <p>6 do not recall whether you researched the</p> <p>7 assay; correct?</p> <p>8 A. I do not recall.</p> <p>9 Q. Thank you. Let's move on.</p> <p>10 If we can turn to page 13 of your 12:27</p> <p>11 amended expert report, you cite Trabert Ness</p> <p>12 2014 for the proposition that a more recent</p> <p>13 pooled analysis examining 12 case-control</p> <p>14 studies found that aspirin could reduce</p> <p>15 ovarian cancer risk by 20 to 34 percent. 12:28</p> <p>16 You see that; right?</p> <p>17 A. Yes, I see that sentence.</p> <p>18 Q. Are you aware that Trabert</p> <p>19 published another study in 2019 titled</p> <p>20 Analgesic Use in Ovarian Cancer Risk: An 12:28</p> <p>21 Analysis in the Ovarian Cancer Cohort</p> <p>22 Consortium?</p> <p>23 A. If it's not in the material list,</p> <p>24 then no.</p> <p>25 Q. When you wrote this report, did you 12:28</p>	<p style="text-align: right;">Page 156</p> <p>1 address findings related to NSAID use and</p> <p>2 the development of ovarian cancer?</p> <p>3 A. Again, I was performing the</p> <p>4 totality of the literature report. I didn't</p> <p>5 specifically look at NSAIDs. I didn't 12:30</p> <p>6 specifically look at heavy metals. I didn't</p> <p>7 specifically look at any of the subjects</p> <p>8 we've been talking about. It's when I did</p> <p>9 the searches and through that systematic</p> <p>10 process we were talking earlier, I provided 12:30</p> <p>11 updates when I found things that were</p> <p>12 available that I found to be relevant.</p> <p>13 Q. That really doesn't answer my</p> <p>14 question, Doctor.</p> <p>15 My question is: Did you attempt to 12:30</p> <p>16 update your discussion of NSAIDs and the</p> <p>17 development of ovarian cancer? Did you</p> <p>18 attempt to update your research on that</p> <p>19 topic?</p> <p>20 ATTORNEY O'DELL: Objection -- 12:30</p> <p>21 THE WITNESS: I attempted to --</p> <p>22 ATTORNEY O'DELL: Excuse me.</p> <p>23 Object to the form. Asked and</p> <p>24 answered.</p> <p>25 THE WITNESS: I attempted to 12:30</p>
<p style="text-align: right;">Page 155</p> <p>1 do research to update your paragraph about</p> <p>2 NSAIDs and ovarian cancer?</p> <p>3 A. Did I do research to update the</p> <p>4 report -- I'm just rereading your question.</p> <p>5 Q. The realtime doesn't often 12:29</p> <p>6 accurately transcribe questions.</p> <p>7 A. So not specific -- I did not</p> <p>8 specifically look at NSAIDs as they relate</p> <p>9 to ovarian cancer --</p> <p>10 Q. You did not attempt to update the 12:29</p> <p>11 research for this section of your report</p> <p>12 that we're looking at on page 13; is that</p> <p>13 correct?</p> <p>14 ATTORNEY O'DELL: Objection to the</p> <p>15 form. Your question related to 12:29</p> <p>16 Trabert, not this whole page of the</p> <p>17 report.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. Dr. Levy?</p> <p>20 A. Yes. 12:29</p> <p>21 ATTORNEY O'DELL: Objection to</p> <p>22 form.</p> <p>23 BY ATTORNEY DAVIDSON:</p> <p>24 Q. Did you do research to update this</p> <p>25 paragraph of your report in which you 12:29</p>	<p style="text-align: right;">Page 157</p> <p>1 update my research throughout the</p> <p>2 report.</p> <p>3 BY ATTORNEY DAVIDSON:</p> <p>4 Q. So do you know why you didn't</p> <p>5 identify and cite the later paper by Trabert 12:30</p> <p>6 on the same topic?</p> <p>7 ATTORNEY O'DELL: Object to the</p> <p>8 form.</p> <p>9 THE WITNESS: No, I don't have an</p> <p>10 answer at the moment. 12:31</p> <p>11 BY ATTORNEY DAVIDSON:</p> <p>12 Q. Okay. Is it possible that the</p> <p>13 reason you don't cite the updated Trabert</p> <p>14 paper is that they found no decrease in</p> <p>15 ovarian cancer risk with the use of 12:31</p> <p>16 anti-inflammatories?</p> <p>17 ATTORNEY O'DELL: Objection to the</p> <p>18 form.</p> <p>19 THE WITNESS: Sorry. You're</p> <p>20 saying that they found no decrease in 12:31</p> <p>21 ovarian cancer risk with the use of</p> <p>22 anti-inflammatories?</p> <p>23 BY ATTORNEY DAVIDSON:</p> <p>24 Q. Is that perhaps the reason why you</p> <p>25 chose -- 12:31</p>

<p style="text-align: right;">Page 158</p> <p>1 A. No.</p> <p>2 Q. -- not to cite the later paper?</p> <p>3 A. No, certainly not.</p> <p>4 Q. Okay. Good to hear.</p> <p>5 A. As I think the last paragraph on 12:31</p> <p>6 page 13 I think alludes to having a balanced</p> <p>7 discussion in the report.</p> <p>8 Q. Do you know how changes in levels</p> <p>9 of mRNA would indicate an increased</p> <p>10 pro-oxidant state in a cell? 12:32</p> <p>11 A. How changes in levels of mRNA would</p> <p>12 indicate a pro-oxidant state?</p> <p>13 Q. Uh-huh.</p> <p>14 A. Certainly.</p> <p>15 Q. Can you explain? 12:32</p> <p>16 A. You'd have to be specific of which</p> <p>17 mRNA to indicate --</p> <p>18 Q. Do you --</p> <p>19 A. So you have -- it's just part of</p> <p>20 the central dogma of biology. There can be 12:32</p> <p>21 a cellular influence, whether it be</p> <p>22 pro-oxidant, other insults, et cetera,</p> <p>23 triggers a regulatory change in the nucleus</p> <p>24 which results in transcription of RNA of</p> <p>25 which mRNA, of course, is the protein coding 12:32</p>	<p style="text-align: right;">Page 160</p> <p>1 chicken or the egg question. Are you</p> <p>2 measuring the final effects of that,</p> <p>3 meaning the final cellular changes, or</p> <p>4 are you measuring the initial</p> <p>5 transcriptional response to a 12:34</p> <p>6 pro-oxidant state? It depends. These</p> <p>7 are reasonably complex pathways with</p> <p>8 pro- and antioxidant systems within</p> <p>9 the cells. It would also depend on</p> <p>10 the cell type as to how you'd measure 12:34</p> <p>11 a pro-oxidant state. There isn't an</p> <p>12 answer.</p> <p>13 BY ATTORNEY DAVIDSON:</p> <p>14 Q. In Fletcher 2019, how did they</p> <p>15 observe or measure an increased pro-oxidant 12:34</p> <p>16 state?</p> <p>17 A. Again, I'd have to look at the</p> <p>18 paper to give you an accurate answer.</p> <p>19 ATTORNEY DAVIDSON: Let's mark it.</p> <p>20 Are we up to 5? 12:34</p> <p>21 THE CERTIFIED STENOGRAPHER: 5.</p> <p>22 (Discussion off the record.)</p> <p>23 (Exhibit Number 5 was marked for</p> <p>24 identification.)</p> <p>25 ATTORNEY O'DELL: Are you going to 12:36</p>
<p style="text-align: right;">Page 159</p> <p>1 component, which then translates to final</p> <p>2 proteins which end up being the effector</p> <p>3 molecules.</p> <p>4 There are nuances there, of course,</p> <p>5 that RNAs can act in a more direct fashion, 12:33</p> <p>6 but you specifically asked mRNA being the</p> <p>7 protein coding RNAs. So depending on which</p> <p>8 mRNAs are up or down regulated could</p> <p>9 indicate a specific cellular state. That is</p> <p>10 why they accept it as a profiling mechanism 12:33</p> <p>11 to characterize cellular states under any</p> <p>12 wide variety of conditions.</p> <p>13 Q. How would you observe a pro-oxidant</p> <p>14 state?</p> <p>15 A. Again, it would depend on the 12:33</p> <p>16 totality of whatever the -- what the</p> <p>17 specific question being asked and what the</p> <p>18 experimental system is.</p> <p>19 Q. How would you measure it?</p> <p>20 ATTORNEY O'DELL: Objection. 12:33</p> <p>21 Asked and answered.</p> <p>22 THE WITNESS: Again, I need more</p> <p>23 detail to provide you an answer. You</p> <p>24 could -- there's -- again, you could</p> <p>25 measure pro-oxidant states -- it's a 12:33</p>	<p style="text-align: right;">Page 161</p> <p>1 mark Fletcher as the next exhibit?</p> <p>2 ATTORNEY DAVIDSON: We marked it</p> <p>3 as Exhibit 5.</p> <p>4 ATTORNEY O'DELL: Okay. It's</p> <p>5 there in the chat. If you need to 12:36</p> <p>6 look at it, Dr. Levy, you can download</p> <p>7 it.</p> <p>8 THE WITNESS: Got it.</p> <p>9 BY ATTORNEY DAVIDSON:</p> <p>10 Q. Doctor, do you remember the pending 12:37</p> <p>11 question?</p> <p>12 A. I have the paper open now, if you</p> <p>13 don't mind restating.</p> <p>14 Q. I just want to make sure you know</p> <p>15 there's a pending question. 12:37</p> <p>16 A. If you can state it again.</p> <p>17 ATTORNEY DAVIDSON: Let's go off.</p> <p>18 (Recess taken from 12:39 p.m.</p> <p>19 12:39 p.m.)</p> <p>20 (Record read by the Certified 12:39</p> <p>21 Stenographer as follows:</p> <p>22 "QUESTION: In Fletcher 2019,</p> <p>23 how did they observe or measure</p> <p>24 an increased pro-oxidant state?"</p> <p>25 THE WITNESS: They measured -- I 12:39</p>

<p style="text-align: right;">Page 162</p> <p>1 just had it here. I was looking at 2 the -- trying to see the -- it used -- 3 they looked at iNOS levels by realtime 4 PCR and then nitric oxide levels 5 before and after 72 hours of talc 12:40 6 treatment. The nitric oxide assays 7 were specific to NO2 minus and NO3 or 8 nitric and nitrous oxide. 9 BY ATTORNEY DAVIDSON: 10 Q. Is that a proper way to measure an 12:40 11 increased pro-oxidant state? 12 A. It's one way to measure. 13 Q. Are you sure? 14 A. They also looked at expression of 15 antioxidant enzymes, but your question was 12:41 16 specific about the increased expression of 17 pro-oxidants. 18 Q. What's your basis for saying that's 19 a proper way to measure increased 20 pro-oxidant state? 12:41 21 A. I guess I don't have any reason to 22 say it's not a proper way to measure 23 pro-oxidants. 24 Q. Do you have a reason other than the 25 fact that it says that in this article to 12:41</p>	<p style="text-align: right;">Page 164</p> <p>1 therefore, reasonable to offer that as 2 a biomarker in the evolving research 3 space. 4 BY ATTORNEY DAVIDSON: 5 Q. Do you know if ovarian cancer 12:43 6 researchers consider the expression C125 to 7 be an appropriate way to research ovarian 8 cancer causation? 9 ATTORNEY O'DELL: Object to the 10 form. 12:43 11 THE WITNESS: I've not 12 specifically reviewed the causation 13 literature. 14 ATTORNEY DAVIDSON: Okay. Let's 15 mark as Exhibit 6 Mandarino 2020. 12:43 16 (Exhibit Number 6 was marked for 17 identification.) 18 BY ATTORNEY DAVIDSON: 19 Q. Before we move on, can I ask you a 20 question? I just have one more question on 12:44 21 this paper actually. 22 Is the change in gene expression 23 levels the same as an altered state of 24 oxidative stress? 25 A. Potentially. 12:44</p>
<p style="text-align: right;">Page 163</p> <p>1 say it is a proper way to measure it? 2 ATTORNEY O'DELL: Object to the 3 form. 4 THE WITNESS: No. 5 BY ATTORNEY DAVIDSON: 12:41 6 Q. Okay. Is CA125 approved for early 7 detection of ovarian cancer? 8 A. I'm not aware of approved. I 9 believe it's present in roughly 80 percent 10 on the cell surface. So roughly 80 percent 12:42 11 of ovarian cancers, if I remember the basic 12 research on it. I'm not aware of its 13 approval or regulatory status as an early 14 detection mechanism. 15 Q. Is it an appropriate way to test 12:42 16 whether talc initiates ovarian cancer? 17 ATTORNEY O'DELL: Objection to 18 form. 19 THE WITNESS: It's -- I would say 20 it is a potential biomarker as a cell 12:42 21 status readout. But as with many 22 things in biology, it's done by -- 23 it's early phases for this as a 24 biomarker. So there's a fairly rich 25 literature of its association and, 12:42</p>	<p style="text-align: right;">Page 165</p> <p>1 Q. Explain. 2 A. So a change in gene expression 3 levels, depending on what genes are changed 4 in their expression, similar to the CA125 5 discussion, that could be a biomarker of a 12:44 6 change in oxidative state. It depends on 7 what is changed, the magnitude of change. 8 With any of these discussions of cellular 9 states, pro-oxidant, antioxidant, et cetera, 10 where you're all discussing in any of these 12:44 11 papers that there's a methodology used to 12 make that measurement, and generally that 13 methodology is either a direct or an 14 indirect measurement. Using molecular 15 biology, you can argue it's a more indirect 12:44 16 measurement. 17 But nonetheless, with appropriate 18 experimental design and controls, it 19 would -- certainly could be a very 20 reasonable approach. Again, it's going to 12:45 21 be dependent on how the study was designed 22 and how it was executed. 23 Q. Can you use ELISA to measure 24 reactive oxygen species? 25 A. Sure. Potentially. ELISA is 12:45</p>

<p style="text-align: right;">Page 166</p> <p>1 simply a linkage of an enzyme to a reporter. 2 If you had a -- whether it be an antibody or 3 other reporter that can measure the change 4 in oxidative state of a protein or other 5 detector, it could certainly be. 12:45 6 Q. Even if the oxygen species are 7 unstable? 8 A. Correct. Whether they're stable or 9 not depends on the sensitivity of the assay 10 and the design of the assay. 12:45 11 Q. Okay. Let's talk about Mandarino 12 2020. If we could turn to page 10 of that 13 report -- of that paper. We're marking it 14 as Exhibit 6, Mandarino, The Effect of Talc 15 Particles on Phagocytes in Co-Culture with 12:46 16 Ovarian Cancer Cells. 17 If you could look at the 18 declaration of interest. 19 A. I see it. 20 Q. It says: JJG has served as an 12:46 21 independent expert and provided expert 22 testimony in talc and other environmentally 23 related litigation. 24 Do you see that? 25 A. I do. 12:46</p>	<p style="text-align: right;">Page 168</p> <p>1 what the depth of that independent 2 expert is. 3 BY ATTORNEY DAVIDSON: 4 Q. What's your basis for that 5 statement? 12:47 6 A. Standard practice and my experience 7 through my career with colleagues as they 8 disclaim interest in companies and interest 9 in -- in other consulting activities. For 10 example -- 12:47 11 Q. When you -- 12 A. -- it's not uncommon for someone to 13 disclose that they're a Wall Street 14 consultant, but they also do not include in 15 that whether they're on the pro side of a 12:47 16 company or buy side of a company or sell 17 side of a company. It's just -- it's 18 indicating that there is a potential -- 19 there are those potential competing 20 interests. 12:48 21 Again, why it's called a 22 declaration of interest. It's not called 23 declaration -- or a conflict of interest. 24 It's a declaration of interest, of which 25 he's now made that declaration. 12:48</p>
<p style="text-align: right;">Page 167</p> <p>1 Q. Does that disclosure tell you which 2 side of the litigation Dr. Godleski is 3 testifying for? 4 A. It does not. 5 Q. Someone reading this paper would 12:46 6 have no idea from the conflict of interest 7 statement what the actual conflict of 8 interest is; correct? 9 ATTORNEY O'DELL: Objection to 10 form. 12:46 11 THE WITNESS: So it would be 12 common practice, particularly in the 13 academic setting -- which I believe 14 Dr. Godleski is a retired pathologist 15 from Harvard -- that you would not 12:47 16 necessarily disclose -- you're 17 disclosing a conflict. And that 18 conflict is saying that he served as 19 an independent expert and provided 20 expert testimony in talc and other 12:47 21 environmentally related litigation. 22 The declaration of interest 23 doesn't have to disclose on which side 24 of that discussion or trial or 25 whatever, or any more detail about 12:47</p>	<p style="text-align: right;">Page 169</p> <p>1 Q. If you're associated with a 2 company, there's no two sides; there's just 3 one company; right? 4 ATTORNEY O'DELL: Object to the 5 form. 12:48 6 THE WITNESS: There are two sides. 7 There's whether or not you are 8 associated with the company in a 9 manner that could influence the 10 research or you're associated with the 12:48 11 company for any number -- there's any 12 number of reasons. It very much 13 depends on the situation. I think 14 it's more the declaration of that 15 interest is the key. 12:48 16 BY ATTORNEY DAVIDSON: 17 Q. Can you point me to any journal 18 that says that, it is declaration of 19 interest procedures? 20 A. That says what? 12:48 21 Q. You don't have to explain the 22 nature of your interest. 23 ATTORNEY O'DELL: Objection to 24 form. 25 THE WITNESS: We would have to 12:49</p>

<p style="text-align: right;">Page 170</p> <p>1 review the journal instructions, but 2 in my recollection, most journals have 3 a threshold at which if you're above 4 that threshold, you make the 5 declaration. But I've never seen a 12:49 6 declaration of interest that states 7 the magnitude of financial interest in 8 a company or the pro- or anti-position 9 on any issue that, if it's relevant to 10 the research, it mainly just states 12:49 11 that there is an interest. 12 BY ATTORNEY DAVIDSON: 13 Q. You've never seen a declaration 14 that says, for a -- an expert in litigation, 15 which side of the litigation they're an 12:49 16 expert for? 17 A. No, no. I'm not saying I've never 18 seen that. I've not seen that as a 19 requirement that it has to be -- it's up to 20 the discretion of the author and what the 12:49 21 journal policies are. 22 Q. How often have you read conflicts 23 of interest by experts in litigation? 24 A. Again, my experience there is 25 limited to this -- to this case. As we 12:49</p>	<p style="text-align: right;">Page 172</p> <p>1 question, please? 2 ATTORNEY DAVIDSON: Court 3 Reporter. 4 (Record read by the Certified 5 Stenographer as follows: 12:51 6 "QUESTION: Are you aware 7 that the authors of Mandarin 8 reported that talc by itself, 9 without the presence of immune 10 cells, did not significantly 12:51 11 affect the number of MOSEC cells 12 after 72 hours?" 13 ATTORNEY O'DELL: Object to the 14 form. 15 THE WITNESS: Just let me -- so 12:51 16 there's the -- are you referring to 17 macrophages? 18 ATTORNEY O'DELL: Can you clarify 19 your question? Dr. Levy asked you. 20 BY ATTORNEY DAVIDSON: 12:52 21 Q. Did you not understand my question? 22 A. No. I was asking you to confirm 23 the cell type. 24 Q. Why don't you tell me your 25 understanding. 12:52</p>
<p style="text-align: right;">Page 171</p> <p>1 talked about earlier, I did not spend a 2 significant amount of time evaluating the 3 declaration -- you know, conflict or 4 declarations of interest through the 5 literature review; therefore, I don't have a 12:50 6 quantitative answer to provide, other than 7 it's not something that I routinely pay 8 attention to. 9 Q. So you don't actually know what 10 percentage of study authors who are experts 12:50 11 in litigation identify which side of the 12 litigation they're on and which percentage 13 don't; correct? 14 ATTORNEY O'DELL: Objection to 15 form. 12:50 16 THE WITNESS: No, I do not know. 17 BY ATTORNEY DAVIDSON: 18 Q. Okay. Let's move on. 19 Are you aware that the authors of 20 Mandarin reported that talc by itself, 12:50 21 without the presence of immune cells, did 22 not significantly affect the number of MOSEC 23 cells after 72 hours? 24 ATTORNEY O'DELL: Which type of 25 cells? Would you mind repeating the 12:51</p>	<p style="text-align: right;">Page 173</p> <p>1 ATTORNEY O'DELL: He's trying to 2 answer your question. 3 THE WITNESS: I'm doing that. 4 Just give me a moment. 5 BY ATTORNEY DAVIDSON: 12:52 6 Q. You tell me. 7 What kind of cells did they use? 8 A. Sorry. Yeah. I wanted to 9 explicitly confirm that their abbreviation, 10 the MO, as you said, was indeed macrophages. 12:52 11 And yes, they are. 12 Q. I assume you know what MOSEC cells 13 are because you cited this paper? 14 A. Correct. 15 Q. Okay. 12:53 16 A. As with all abbreviations, to be 17 thorough, I was confirming the meaning of 18 that abbreviation. There are some standard 19 and some left standard abbreviations. 20 Q. Do you recall my question? 12:53 21 A. Your question was would I be 22 surprised that there was -- 23 Q. No, I didn't say anything about 24 being surprised. 25 A. Oh. 12:53</p>

<p style="text-align: right;">Page 174</p> <p>1 Q. Are you aware that the authors 2 reported that talc by itself, without the 3 presence of immune cells, did not 4 significantly affect the number of MOSEC 5 cells after 72 hours? 12:53 6 ATTORNEY O'DELL: Object to the 7 form. 8 THE WITNESS: Again, I'm looking 9 at the paper to understand that 10 result. 12:54 11 BY ATTORNEY DAVIDSON: 12 Q. Okay. 13 A. Is your question referring to the 14 MOSEC cells that remain surviving after 15 72 hours, based on the GFP positive flow 12:55 16 cytometry results? 17 Q. Doctor, I'm asking you a simple 18 question. I'm asking you whether the 19 authors reported that talc by itself, 20 without the presence of immune cells, did 12:55 21 not significantly affect the number of MOSEC 22 cells after 72 hours. 23 ATTORNEY O'DELL: Object to the 24 form. 25 THE WITNESS: And, again, I'm 12:55</p>	<p style="text-align: right;">Page 176</p> <p>1 BY ATTORNEY DAVIDSON: 2 Q. Was that my question? 3 A. Your question was in the absence of 4 immune cells. 5 Q. Uh-huh. 12:56 6 A. And I was clarifying which results 7 section, to which you said it was a simple 8 answer. So in the effort to try to be 9 thorough, I was either asking for the 10 clarification of the specific -- because in 12:56 11 my reading, that result would indicate the 12 answer to your question would seem to be no 13 because E2 is estradiol. It's not a cell 14 type. 15 Q. I'm just ask -- I'm asking you: Do 12:57 16 you know whether the authors reported that 17 talc by itself, without the presence of 18 immune cells, did not significantly affect 19 the number of MOSEC cells after 72 hours? 20 A. No. I would need to -- I would say 12:57 21 I'm not sure. I would need to look at the 22 paper in more detail. 23 Q. If talc did not significantly 24 affect the number of MOSEC cells after 25 72 hours, would that weigh in favor of 12:57</p>
<p style="text-align: right;">Page 175</p> <p>1 clarifying -- trying to clarify the 2 specific results. 3 BY ATTORNEY DAVIDSON: 4 Q. If you don't know the answer and 5 can't figure it out on the spot, you can 12:55 6 just say so. 7 ATTORNEY O'DELL: Object to the 8 form. I think his -- the concern is 9 confusion over the question because 10 it's -- so he's asked you to clarify 12:56 11 it. 12 ATTORNEY DAVIDSON: It couldn't be 13 clearer. 14 THE WITNESS: And the reason I was 15 asking for the clarification is 12:56 16 because my reading of the results is 17 that the proliferation ratio show that 18 the combination of talc and E2 allowed 19 a larger proportion of MOSEC cells 20 than either agent alone shown in 12:56 21 Figure S3, which is a supplementary 22 figure and, therefore, not in the 23 paper. 24 /// 25 ///</p>	<p style="text-align: right;">Page 177</p> <p>1 carcinogenicity or against carcinogenicity? 2 ATTORNEY O'DELL: Object to the 3 form. 4 THE WITNESS: It would depend on 5 what the control experiments showed 12:57 6 without the talc. 7 BY ATTORNEY DAVIDSON: 8 Q. Can you explain what you mean? 9 A. So you're asking a question on 10 the -- of the experiment in isolation being 12:58 11 that under -- generally speaking, if the 12 number of MOSEC cells does not change, what 13 is that indicative of? That essentially is 14 your question. But the -- I'm not -- my 15 reading of this is I'm not sure that the 12:58 16 number of MOSEC cells is actually the 17 variable that's under study in this case. 18 Q. Are you aware that the authors -- 19 ATTORNEY O'DELL: I'm sorry, 20 Jessica. I'm not sure he's done. 12:58 21 ATTORNEY DAVIDSON: I thought he 22 was done. 23 BY ATTORNEY DAVIDSON: 24 Q. Are you aware that the authors 25 state you did not investigate the 12:58</p>

<p style="text-align: right;">Page 178</p> <p>1 carcinogenic properties of talc?</p> <p>2 ATTORNEY O'DELL: If you're not</p> <p>3 finished with your prior answer,</p> <p>4 Dr. Levy, you may continue. She did</p> <p>5 not give you an opportunity to respond 12:59</p> <p>6 if you need to.</p> <p>7 THE WITNESS: In this review,</p> <p>8 looking at the paper again, the</p> <p>9 carcinogenicity of talc was not the</p> <p>10 primary question that was being asked 12:59</p> <p>11 in this study.</p> <p>12 BY ATTORNEY DAVIDSON:</p> <p>13 Q. Is it your testimony that the</p> <p>14 authors don't provide a control?</p> <p>15 A. No. That's not what I said. 12:59</p> <p>16 Q. I didn't understand.</p> <p>17 What were you saying about control?</p> <p>18 A. You were asking a comparative --</p> <p>19 you asked is it -- if the MOSEC cells did</p> <p>20 not change number after 72 hours in the 12:59</p> <p>21 absence of immune cells, would that</p> <p>22 indicate -- essentially you were asking:</p> <p>23 Would that indicate that talc did not have</p> <p>24 an effect on the MOSEC cells? And my answer</p> <p>25 was that evaluation would need to be taken 12:59</p>	<p style="text-align: right;">Page 180</p> <p>1 plausible mechanism of talc contributing to</p> <p>2 inflammatory responses. And in this case,</p> <p>3 through the use of an in vitro experiment</p> <p>4 looking at phagocytosis of talc and then</p> <p>5 what some of those cell interactions are 01:01</p> <p>6 following that.</p> <p>7 Q. Does this paper show anything about</p> <p>8 carcinogenesis?</p> <p>9 ATTORNEY O'DELL: Objection to the</p> <p>10 form. 01:02</p> <p>11 THE WITNESS: This paper wasn't</p> <p>12 designed to show anything about</p> <p>13 carcinogenesis. This is more</p> <p>14 mechanistic paper evaluating one small</p> <p>15 component that may contribute to the 01:02</p> <p>16 underlying mechanisms in a more</p> <p>17 complex organism or individual.</p> <p>18 I think also worth noting in this</p> <p>19 paper is that the controls were not no</p> <p>20 treatment whatsoever. The controls 01:02</p> <p>21 used other particulate matter,</p> <p>22 titanium dioxide, concentrated urban</p> <p>23 air particulates, or diesel exhaust</p> <p>24 particles, and then used that as a</p> <p>25 comparison to using -- relative to 01:02</p>
<p style="text-align: right;">Page 179</p> <p>1 with the context of appropriate controls to</p> <p>2 evaluate what the actual changes were.</p> <p>3 Q. But did --</p> <p>4 A. Again, in my reading of these</p> <p>5 results, this was looking -- this is a 01:00</p> <p>6 phagocytic assay, not a carcinogenic assay.</p> <p>7 Trying to evaluate whether the cells take up</p> <p>8 the foreign particles.</p> <p>9 Q. But didn't the authors use a proper</p> <p>10 control? 01:00</p> <p>11 A. So, again, that's -- I didn't say</p> <p>12 they did or didn't. You asked a question in</p> <p>13 isolation. I said the answer to that</p> <p>14 question would have to come with comparison</p> <p>15 to controls. I also explained that they -- 01:00</p> <p>16 to answer your question, you're asking a</p> <p>17 very general question in the context of a</p> <p>18 more complex experiment.</p> <p>19 Q. So how does this paper support your</p> <p>20 opinions? 01:00</p> <p>21 A. Which opinions?</p> <p>22 Q. Any of your opinions.</p> <p>23 A. So specifically this paper is -- so</p> <p>24 this -- I think this paper continues to</p> <p>25 support aspects of the biologically 01:01</p>	<p style="text-align: right;">Page 181</p> <p>1 talc particles.</p> <p>2 BY ATTORNEY DAVIDSON:</p> <p>3 Q. Does this paper involve human</p> <p>4 cells?</p> <p>5 A. The MOSEC cells are mirroring; so 01:03</p> <p>6 they're mouse. And then the -- I'd have to</p> <p>7 look at the methods to confirm that the</p> <p>8 macrophages were also -- so they use</p> <p>9 mirroring cell lines J774 and IC21 and then</p> <p>10 some experiments RAW 264.7. These are all 01:03</p> <p>11 available cell lines from the American</p> <p>12 tissue type collection. It looks like these</p> <p>13 are all mouse cells.</p> <p>14 Q. So the study didn't even consider</p> <p>15 human cells; correct? 01:04</p> <p>16 ATTORNEY O'DELL: Object to form.</p> <p>17 THE WITNESS: It looks like this</p> <p>18 study used mouse cells as a model</p> <p>19 system.</p> <p>20 BY ATTORNEY DAVIDSON: 01:04</p> <p>21 Q. So I didn't understand what you</p> <p>22 were saying.</p> <p>23 You don't think the study has</p> <p>24 proper controls?</p> <p>25 ATTORNEY O'DELL: Objection. 01:04</p>

<p style="text-align: right;">Page 182</p> <p>1 Misstates his testimony.</p> <p>2 THE WITNESS: No. I didn't make</p> <p>3 that statement at all.</p> <p>4 BY ATTORNEY DAVIDSON:</p> <p>5 Q. Is titanium a proper control or 01:04</p> <p>6 not?</p> <p>7 A. So the study was examining the</p> <p>8 ability of cells to phagocytize particulate</p> <p>9 matter, of which there was at least four</p> <p>10 that I mentioned. Some from air particles, 01:04</p> <p>11 which appear to be defined purely as their</p> <p>12 source, titanium dioxide as one and then</p> <p>13 talc as another.</p> <p>14 I did not recall -- or do not</p> <p>15 recall seeing in the methods even a further 01:05</p> <p>16 description of the specific components of</p> <p>17 the talc, whether it was pure talc or it was</p> <p>18 talc that was measured for other potential</p> <p>19 contribution such as asbestos or other</p> <p>20 material. I didn't see that noted. 01:05</p> <p>21 Q. Dr. Levy, can you try to answer my</p> <p>22 questions so we can get home tonight.</p> <p>23 My question was: Is titanium</p> <p>24 dioxide a proper control?</p> <p>25 ATTORNEY O'DELL: Objection to the 01:05</p>	<p style="text-align: right;">Page 184</p> <p>1 between the reaction of the cells</p> <p>2 under these experimental conditions</p> <p>3 across those four particulates.</p> <p>4 So asking whether one is an</p> <p>5 appropriate control over the other, 01:06</p> <p>6 that's not -- that's not how this</p> <p>7 study -- that's not what this study</p> <p>8 was designed to evaluate. It was</p> <p>9 designed to evaluate: Is there a</p> <p>10 difference between those four? 01:07</p> <p>11 BY ATTORNEY DAVIDSON:</p> <p>12 Q. How can we tell whether the effects</p> <p>13 were specific to talc?</p> <p>14 ATTORNEY O'DELL: Object to the</p> <p>15 form. 01:07</p> <p>16 THE WITNESS: Sorry. Were</p> <p>17 specific to tell if there's a</p> <p>18 difference?</p> <p>19 BY ATTORNEY DAVIDSON:</p> <p>20 Q. To talc. 01:07</p> <p>21 A. Oh, to talc. Well, to talc is what</p> <p>22 was tested. Do you mean which component of</p> <p>23 talc? I think they make reference that</p> <p>24 the -- that this was a modern sample of</p> <p>25 talc. And they state in the introduction 01:07</p>
<p style="text-align: right;">Page 183</p> <p>1 commentary. The question was asked</p> <p>2 and answered.</p> <p>3 THE WITNESS: As a control</p> <p>4 particle for a phagocytic assay, it</p> <p>5 appears to be an appropriate control. 01:05</p> <p>6 BY ATTORNEY DAVIDSON:</p> <p>7 Q. If there's evidence that titanium</p> <p>8 dioxide induces changes, would that make it</p> <p>9 an improper control?</p> <p>10 ATTORNEY O'DELL: Objection to 01:06</p> <p>11 form.</p> <p>12 THE WITNESS: Induces what kind of</p> <p>13 changes? Any changes? It may or may</p> <p>14 not be. It may be a -- if all of the</p> <p>15 particles have the same effect, then 01:06</p> <p>16 you conclude that the phagocytic</p> <p>17 process and the influence of estradiol</p> <p>18 is the same regardless of particulate</p> <p>19 matter. The question in the study</p> <p>20 isn't: Is any one of -- is 01:06</p> <p>21 concentrated urban air or diesel</p> <p>22 exhaust particles an appropriate</p> <p>23 control, or is titanium dioxide an</p> <p>24 appropriate control to talc? The</p> <p>25 question is: Is there a difference 01:06</p>	<p style="text-align: right;">Page 185</p> <p>1 that there's an assumption that it's thought</p> <p>2 to be asbestos free, but no notation was</p> <p>3 made whether that was confirmed or not.</p> <p>4 So if your question is, was it</p> <p>5 specific to talc versus components of talc, 01:08</p> <p>6 that wasn't -- that wasn't part of this</p> <p>7 experimental design. This was testing the</p> <p>8 specific sample of talc they used under the</p> <p>9 experimental conditions as described.</p> <p>10 Sorry. Allow me to correct that. 01:08</p> <p>11 In the method to talc that was used in this</p> <p>12 study, was obtained via JT Baker with a</p> <p>13 specific batch notation and was certified as</p> <p>14 asbestos free.</p> <p>15 Q. Are you looking at the paper on a 01:08</p> <p>16 computer screen?</p> <p>17 A. I'm looking at the paper as it was</p> <p>18 provided as the exhibit.</p> <p>19 Q. I see. In the chat?</p> <p>20 A. Correct. They performed some 01:09</p> <p>21 controls to have the -- they filtered the</p> <p>22 talc through a 30 micron nylon mesh,</p> <p>23 presumably to avoid -- and they note that</p> <p>24 they did not use any commercial talc</p> <p>25 products as the talc source. 01:09</p>

<p style="text-align: right;">Page 186</p> <p>1 Q. Did I have a question pending?</p> <p>2 A. You had asked about the talc.</p> <p>3 Q. My question is simple.</p> <p>4 Is it your opinion that this study</p> <p>5 can tell us whether the facts found are 01:09</p> <p>6 specific to talc as opposed to other types</p> <p>7 of particles?</p> <p>8 ATTORNEY O'DELL: Object to the</p> <p>9 form. Asked and answered.</p> <p>10 THE WITNESS: Given my comments 01:10</p> <p>11 about talc, in this study that was</p> <p>12 studying the ability of these cells to</p> <p>13 phagocytize talc, given that the</p> <p>14 authors went to lengths to use the</p> <p>15 talc, as I just described, and its 01:10</p> <p>16 source and indicating it was certified</p> <p>17 as asbestos free, it would appear to</p> <p>18 me in reviewing this paper that this</p> <p>19 was specific to talc.</p> <p>20 BY ATTORNEY DAVIDSON: 01:10</p> <p>21 Q. We're having a misunderstanding.</p> <p>22 I mean, does this study tell us</p> <p>23 whether the effects found were specific to</p> <p>24 talc, whatever its components, as opposed to</p> <p>25 completely other types of substances and 01:10</p>	<p style="text-align: right;">Page 188</p> <p>1 Q. And changes in gene expression are</p> <p>2 different from mutations?</p> <p>3 ATTORNEY O'DELL: Objection.</p> <p>4 Asked and answered.</p> <p>5 THE WITNESS: Well, I think -- 01:11</p> <p>6 important to clarify. Yes, changes in</p> <p>7 gene expression are absolutely</p> <p>8 different than mutations. They're in</p> <p>9 two separate biological processes.</p> <p>10 One can impact the other certainly, 01:12</p> <p>11 but they are not the same.</p> <p>12 BY ATTORNEY DAVIDSON:</p> <p>13 Q. And Mandarino studied gene</p> <p>14 expression?</p> <p>15 A. No. The primary -- I think the 01:12</p> <p>16 primary assay they were using was GFP</p> <p>17 expression in the MOSEC cells.</p> <p>18 Q. Okay. What's the difference</p> <p>19 between neoplastic transformation and</p> <p>20 malignant transformation? You mentioned 01:12</p> <p>21 earlier that they differ. Can you explain?</p> <p>22 A. Well, I was clarifying if you've</p> <p>23 considered those equal.</p> <p>24 Q. I'm asking you. You're the expert.</p> <p>25 I'm certainly not. 01:12</p>
<p style="text-align: right;">Page 187</p> <p>1 particles?</p> <p>2 ATTORNEY O'DELL: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: I'm not trying to be</p> <p>5 obtuse about this, but you're -- the 01:10</p> <p>6 study specifically compared talc to</p> <p>7 titanium dioxide to two other</p> <p>8 particulate sources provided by the</p> <p>9 EPA. You're asking: Did they</p> <p>10 specifically look at talc? So the 01:11</p> <p>11 answer is yes, they specifically</p> <p>12 looked at talc.</p> <p>13 If I understand your question</p> <p>14 correctly, you're asking: Is the</p> <p>15 effects they observed specific to 01:11</p> <p>16 talc? And I guess if I'm</p> <p>17 understanding your question correctly,</p> <p>18 I'm not sure how it could not be</p> <p>19 specific to talc because that's what</p> <p>20 was tested. 01:11</p> <p>21 BY ATTORNEY DAVIDSON:</p> <p>22 Q. Okay. Do you think gene expression</p> <p>23 is the same as a mutation?</p> <p>24 A. No. They're fundamentally</p> <p>25 different things. 01:11</p>	<p style="text-align: right;">Page 189</p> <p>1 ATTORNEY O'DELL: Objection.</p> <p>2 THE WITNESS: Yeah, I was</p> <p>3 asking -- I asked you that question to</p> <p>4 clarify the meaning behind your</p> <p>5 question at the time. 01:12</p> <p>6 BY ATTORNEY DAVIDSON:</p> <p>7 Q. Okay. So now I'm asking you the</p> <p>8 question.</p> <p>9 A. Which is? What's the difference</p> <p>10 between malignant transformation and 01:13</p> <p>11 neoplasm?</p> <p>12 Q. And neoplastic transformation.</p> <p>13 A. Depends on the specificity of your</p> <p>14 question. In either case, it indicates a</p> <p>15 cellular transformation where generally a 01:13</p> <p>16 loss of growth inhibition. But beyond that,</p> <p>17 it very much depends on the conditions in</p> <p>18 which it's being asked. And the cell types,</p> <p>19 et cetera.</p> <p>20 So a malignancy is a more general 01:13</p> <p>21 term. And then a neoplastic transformation</p> <p>22 is generally more specific.</p> <p>23 But in both cases, they indicate</p> <p>24 cells with aberrant growth. And that</p> <p>25 aberrant growth may be caused by any number 01:13</p>

<p style="text-align: right;">Page 190</p> <p>1 of initiating or driver mechanisms as well 2 as passenger effects that happen as the 3 cells evolve. 4 Q. Can there be benign neoplastic 5 transformation? 01:14 6 A. Certainly. Well, you can have 7 benign neoplasms, yes, where you have 8 unregulated cell growth, but that cell 9 growth may be slow and that cell growth may 10 have zero metastatic potential. There are 01:14 11 certain types of renal carcinoma that fall 12 into this category. There are cysts that 13 form in karyocytes in the skin that fall 14 into this potential. That's why I say in 15 terms of malignant transformation, generally 01:14 16 we refer to something that has that 17 metastatic potential. 18 Q. Is carcinogenesis caused by changes 19 in gene expression levels or by mutations? 20 A. Well, carcinogenesis doesn't 01:15 21 have -- it's not an either/or. So you -- 22 something that is carcinogenic could do 23 either of those things. You could have a 24 change in gene expression. You could also 25 have a change in gene regulation, such as 01:15</p>	<p style="text-align: right;">Page 192</p> <p>1 there are, again, driver and passenger 2 mutations and changes in gene 3 expression and changes in gene 4 regulation that drive that, and it's a 5 very tumor-type, genetic 01:16 6 background-type specific. 7 We understand some aspects of it, 8 but many of those areas are still 9 misunderstood, which is why cancer 10 remains such a challenging space. 01:16 11 BY ATTORNEY DAVIDSON: 12 Q. How do researchers determine in an 13 in vitro cell culture whether something has 14 become cancerous? 15 A. Well, I wouldn't say that that 01:17 16 would be a common experimental design to 17 conclude that when something becomes 18 cancerous. Saying cancerous is not a 19 descriptor that would be relevant to an in 20 vitro assay. 01:17 21 ATTORNEY DAVIDSON: Leigh, you 22 sounded like you were about to say 23 something. 24 ATTORNEY O'DELL: We've been going 25 about an hour and ten minutes. It's 01:17</p>
<p style="text-align: right;">Page 191</p> <p>1 methylation changes in epigenetics. You can 2 also have the inducement of a mutation 3 through any number of mechanisms. It's not 4 an either/or. 5 Q. What makes something metastatic 01:15 6 above and beyond neoplastic transformation? 7 ATTORNEY O'DELL: Objection to 8 form. 9 THE WITNESS: Again, it could be 10 any number of things. But 01:15 11 generally -- if I answer this in terms 12 of the progression of cancer, as I 13 said, there are different cancer 14 types. And as we know, there are more 15 aggressive and less aggressive forms 01:16 16 of disease, and then there are 17 recurrent disease, et cetera. 18 The point being is one of the key 19 hallmarks of cancer progression is a 20 transition from aberrant cell growth, 01:16 21 meaning something that is neoplastic 22 to a -- that then becomes metastatic 23 or becomes a non-local disease. It's 24 no longer localized to the organ or 25 tissue that it began in. And then 01:16</p>	<p style="text-align: right;">Page 193</p> <p>1 1:20 here, right at 1:20. If we can 2 go off the record and take a short 3 break for lunch. 4 (Recess taken from 1:18 p.m. to 5 1:57 p.m.) 01:57 6 BY ATTORNEY DAVIDSON: 7 Q. Dr. Levy, on page 15 of your expert 8 report -- amended expert report -- just so I 9 don't have to say the word amended all day, 10 if I say "expert report," I mean amended. 01:58 11 You cite ME2021 for your biological 12 plausibility opinion. Why do you say the ME 13 paper? 14 A. Did you say page 15? Oh, I see. 15 I'd have to look at ME. It's in the same -- 01:58 16 similar to Mandarino in terms of an immune 17 modulating effect, as I stated in the 18 report. I'd have to remind myself of the 19 content of that paper. 20 Q. You don't remember what that paper 01:58 21 is about? 22 ATTORNEY O'DELL: Object to the 23 form. 24 THE WITNESS: I want to make sure 25 I give an accurate answer; so I'd have 01:59</p>

<p style="text-align: right;">Page 194</p> <p>1 to look at it. It will just take a</p> <p>2 second.</p> <p>3 BY ATTORNEY DAVIDSON:</p> <p>4 Q. I understand.</p> <p>5 Do you remember at all what that 01:59</p> <p>6 paper is about, without looking at it?</p> <p>7 A. Not off the top of my head, beyond</p> <p>8 what it states in the one sentence.</p> <p>9 Q. What does it state in the one</p> <p>10 sentence? 01:59</p> <p>11 A. That supporting observations of the</p> <p>12 immune modulating effect of talc were made</p> <p>13 by Emi and colleagues in a separate study.</p> <p>14 Q. Okay. Let's mark the Emi paper.</p> <p>15 ATTORNEY DAVIDSON: Noah, what 01:59</p> <p>16 number is it?</p> <p>17 ATTORNEY EPSTEIN: Exhibit 7.</p> <p>18 (Exhibit Number 7 was marked for</p> <p>19 identification.)</p> <p>20 BY ATTORNEY DAVIDSON: 01:59</p> <p>21 Q. We're marking as Exhibit 7,</p> <p>22 Transcriptomic and Epigenomic Effects of</p> <p>23 Insoluble Particles on J774</p> <p>24 Macrophages, by Emi, et al.</p> <p>25 Can you now tell me how this paper 02:00</p>	<p style="text-align: right;">Page 196</p> <p>1 Q. And the authors --</p> <p>2 A. It's a female cell line, but it is</p> <p>3 not an ovarian cell line. It's a macrophage</p> <p>4 phagocytic model cell line.</p> <p>5 Q. And the authors found that titanium 02:01</p> <p>6 dioxide also leads to gene expression and</p> <p>7 transcription changes in phagocytes; right?</p> <p>8 A. They found gene expression changes</p> <p>9 in both conditions, but they -- what they --</p> <p>10 they found an enhanced response based on 02:02</p> <p>11 talc compared to -- so yes. The answer to</p> <p>12 your question is yes, but there was not an</p> <p>13 equal response.</p> <p>14 Q. Is titanium dioxide biologically</p> <p>15 inert? 02:02</p> <p>16 A. Clearly in these results, it would</p> <p>17 indicate it is not inert, meaning it doesn't</p> <p>18 impart a change. Inert is not necessarily</p> <p>19 the same as having a specific effect.</p> <p>20 Q. Does this show that talc caused any 02:02</p> <p>21 mutations?</p> <p>22 A. This paper wasn't assaying if it</p> <p>23 caused mutations or not. This paper doesn't</p> <p>24 attempt to answer that question.</p> <p>25 Q. And it also doesn't tell us 02:02</p>
<p style="text-align: right;">Page 195</p> <p>1 supports your opinions?</p> <p>2 A. Sure. So this -- I think this</p> <p>3 paper continues to support the</p> <p>4 proinflammatory and immune modulating</p> <p>5 effects of talc particles. In this 02:00</p> <p>6 particular paper, they looked at a gene</p> <p>7 expression readout primarily by using</p> <p>8 microarray technology, and they report that</p> <p>9 there's a sustainably more prominent gene</p> <p>10 expression change in talc compared to 02:00</p> <p>11 titanium dioxide.</p> <p>12 The paper goes on to describe the</p> <p>13 nature of those gene changes in terms of a</p> <p>14 pathway and ontology perspective, and then</p> <p>15 they -- because of an unexpected result in 02:00</p> <p>16 some of those gene expression changes, they</p> <p>17 also looked at DNA methylation profiles</p> <p>18 using a genomewide bisulfite sequencing</p> <p>19 technique.</p> <p>20 Q. Does this paper study ovarian 02:01</p> <p>21 cells?</p> <p>22 A. It studies the J774 macrophage.</p> <p>23 Q. So that's not ovarian cells; right?</p> <p>24 A. No, it is not. It's a murine cell</p> <p>25 line. It's a -- 02:01</p>	<p style="text-align: right;">Page 197</p> <p>1 anything about carcinogenesis; right?</p> <p>2 ATTORNEY O'DELL: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: So, again, the</p> <p>5 purpose of this paper was looking at, 02:02</p> <p>6 as I think the title reasonably</p> <p>7 clearly states, looking specifically</p> <p>8 at transcriptomic and epigenomic</p> <p>9 effects on a specific cell type, the</p> <p>10 J774 macrophages. It didn't attempt 02:03</p> <p>11 to examine carcinogenesis. And based</p> <p>12 on the results of the paper, it also</p> <p>13 did not attempt to assay mutations,</p> <p>14 although mainly primarily because the</p> <p>15 technologies used would be insensitive 02:03</p> <p>16 to mutation, for the most part.</p> <p>17 You could argue the bisulfite</p> <p>18 sequencing may be able to detect</p> <p>19 mutations, but they did not indicate</p> <p>20 they did that in the analysis section. 02:03</p> <p>21 BY ATTORNEY DAVIDSON:</p> <p>22 Q. Can in vitro acids be used to</p> <p>23 determine malignancy?</p> <p>24 A. Malignancy with the definition of</p> <p>25 able to invade away from the site of origin, 02:03</p>

<p style="text-align: right;">Page 198</p> <p>1 an in vitro assay can't directly measure 2 malignancy, but an in vitro assay may be 3 able to provide, in detail, markers that are 4 similar to from the mechanistic standpoint 5 to malignancy. 02:04 6 You can't prove malignancy with an 7 in vitro assay, not without taking those 8 same cells into xenograph model or some 9 other common techniques like that. Again, 10 that was not done in this paper. 02:04 11 Q. I think that was a no? 12 ATTORNEY O'DELL: Object to the 13 form. His answer was what his answer 14 was. 15 THE WITNESS: This paper did not 02:04 16 attempt to study malignancy. 17 BY ATTORNEY DAVIDSON: 18 Q. I just want to make clear you agree 19 that malignancy cannot be demonstrated just 20 by an in vitro study; correct? 02:05 21 A. Malignant potential can be 22 demonstrated by an in vitro assay, but 23 malignancy cannot be proven in a simple 24 single -- a cell culture -- simple cell 25 culture-based assay. There are in vitro 02:05</p>	<p style="text-align: right;">Page 200</p> <p>1 A. This one was a somewhat newer study 2 that I had found through the literature 3 search, and I thought it was a relevant 4 study, given that it was looking at 5 survivorship of ovarian cancer relative to a 02:06 6 variety of usages, talc included. 7 Q. Does data on survivorship tell you 8 anything about initiation? 9 A. Initiation, no, not necessarily. 10 Or I would say: Does data on survivorship 02:07 11 explain initiation? No, it does not. 12 Q. So this study doesn't tell you 13 about the causes of ovarian cancer; correct? 14 ATTORNEY O'DELL: Object to the 15 form. 02:07 16 THE WITNESS: This study was not 17 examining causative. This study was 18 purely a survivorship study, meaning 19 inclusion in the study meant you 20 already had the disease. 02:07 21 BY ATTORNEY DAVIDSON: 22 Q. So it's not relevant to whether or 23 not talc can cause ovarian cancer; correct? 24 ATTORNEY O'DELL: Object to the 25 form. 02:07</p>
<p style="text-align: right;">Page 199</p> <p>1 models that allow malignancy to be measured, 2 but the systems used in this particular case 3 are not those. 4 Q. What in vitro models allow 5 malignancy to be measured? 02:05 6 A. There are reasonably novel 7 three-dimensional cell structures, 8 hydrogels, and multiple layer cell materials 9 that are now being viewed as accurate 10 measures for malignancy, meaning the ability 02:05 11 for cells to transfer through, say, cell 12 monolayers or mimic some tissues or 13 artificial organs. Technically, those are 14 in vitro assays, and those most closely are 15 viewed as mimicking malignant -- malignant 02:06 16 potential or malignancy, but that's as close 17 as I've seen. 18 Q. And you've never seen that done in 19 any talc studies; right? 20 A. I have not. 02:06 21 Q. On page 16 of your report, you add 22 a reference to a Brieger study. 23 Do you recall that study? 24 A. Brieger, yes. 25 Q. Why did you cite that study? 02:06</p>	<p style="text-align: right;">Page 201</p> <p>1 THE WITNESS: I found it relevant 2 to the subject that I was asked to 3 provide an opinion around the general 4 biological plausibility for talc and 5 disease progression. And the reason 02:08 6 it's included is if talc has an 7 amplifying effect on disease 8 progression or other roles, the 9 opportunity to include a survivorship 10 study is certainly relevant as to be 02:08 11 examining as comprehensive review of 12 the literature as possible. 13 BY ATTORNEY DAVIDSON: 14 Q. How is a study on survivorship 15 relevant to your opinions on causation? 02:08 16 A. To be clear, my opinions are not 17 focused on causation. But part of my 18 opinions are the progression and severity of 19 the disease. And survivorship certainly is 20 an indicator, and potentially a helpful 02:08 21 indicator as to -- any compound, whether it 22 influences disease progression and 23 survivorship, is a very good surrogate for 24 progression. 25 Q. Are the plaintiffs in this 02:09</p>

<p style="text-align: right;">Page 202</p> <p>1 litigation alleging that talc caused them to 2 have a worse prognosis after they were 3 already diagnosed with ovarian cancer? 4 ATTORNEY O'DELL: Object to the 5 form. 02:09 6 THE WITNESS: Again, my focus has 7 been limited to the areas that we've 8 been discussing around the biological 9 plausibility. I'm not aware of what 10 plaintiffs may or may not be alleging. 02:09 11 BY ATTORNEY DAVIDSON: 12 Q. Are you offering an opinion in this 13 case that exposure to talc can result in a 14 worse prognosis for somebody who's diagnosed 15 with ovarian cancer? 02:09 16 ATTORNEY O'DELL: Objection. 17 Asked and answered. 18 THE WITNESS: I'm offering an 19 opinion as to the totality of the 20 impact of talc throughout the ovarian 02:09 21 cancer process when possible. And so 22 in the spirit of that literature 23 review, I found this study as, and at 24 least in my searches, as one of the 25 few or only survivorship studies that 02:10</p>	<p style="text-align: right;">Page 204</p> <p>1 contributing factors or other 2 activities that may either inhibit 3 treatment options or enhance disease 4 progression, they're certainly 5 relevant in the overall milieu of that 02:11 6 disease. 7 BY ATTORNEY DAVIDSON: 8 Q. My question was: Can you point to 9 a single paper in the body of scientific 10 literature by an ovarian cancer researcher 02:11 11 that considers evidence related to the 12 progression of ovarian cancer in 13 determining -- in assessing potential causes 14 or biological mechanisms for the initiation 15 of ovarian cancer? 02:11 16 ATTORNEY O'DELL: Object to the 17 form. Asked and answered. 18 THE WITNESS: So you're asking 19 three different questions. Is 20 there -- 02:11 21 BY ATTORNEY DAVIDSON: 22 Q. I'm asking one question. 23 ATTORNEY O'DELL: Let him finish, 24 please. 25 THE WITNESS: By the form of your 02:11</p>
<p style="text-align: right;">Page 203</p> <p>1 also looked at talc in addition to a 2 number of other inflammatory-related 3 exposures. So, therefore, given the 4 nature of my previous report and 5 amended report, found this study to be 02:10 6 relevant to be included. But it 7 doesn't -- I'm not drawing any 8 specific conclusions from this study 9 and this study alone. 10 BY ATTORNEY DAVIDSON: 02:10 11 Q. Can you point to a single paper in 12 the entire body of scientific literature by 13 an ovarian cancer researcher that relies on 14 research regarding ovarian cancer 15 progression to address potential causes of 02:10 16 ovarian cancer? 17 ATTORNEY O'DELL: Objection to the 18 form. 19 THE WITNESS: Most commonly, 20 studies of progression and studies of 02:10 21 causation would generally be done 22 independent from each other. Although 23 certainly as is the case in other 24 areas perhaps of more common 25 conditions, when you can link 02:11</p>	<p style="text-align: right;">Page 205</p> <p>1 question, you're asking about 2 progression, initiation, and I think 3 you also said one other which -- 4 progression, initiation, and 5 survivorship. Those are -- they're 02:12 6 independent events. The initiation of 7 the cancer is independent from the 8 progression of the cancer, which is 9 independent but related to the 10 survivorship of the cancer. 02:12 11 I can't point you to a single 12 paper that connects all three of those 13 in ovarian cancer as it relates to 14 talc because that would be an 15 unusual -- very unusual study. 02:12 16 BY ATTORNEY DAVIDSON: 17 Q. That wasn't my question. I've got 18 eight hours. I can ask this question as 19 many times as it takes for you to answer it. 20 Can you point to a single paper by 02:12 21 an ovarian cancer researcher that looks at 22 research related to the progression of 23 ovarian cancer and factors that affect the 24 progression of ovarian cancer in attempting 25 to understand what causes or leads to the 02:12</p>

<p style="text-align: right;">Page 206</p> <p>1 initiation of ovarian cancer?</p> <p>2 ATTORNEY O'DELL: Objection to the</p> <p>3 form.</p> <p>4 That's a different question, but</p> <p>5 go ahead. 02:13</p> <p>6 THE WITNESS: So I cannot point</p> <p>7 you to one today, but that would be</p> <p>8 something that would be -- I recall</p> <p>9 some -- I have seen some body of</p> <p>10 literature, perhaps not in ovarian 02:13</p> <p>11 cancer which is why I would need to</p> <p>12 take a novel -- or take another</p> <p>13 look -- that factors that influence</p> <p>14 progression are often looked at in the</p> <p>15 context of initiation as well; 02:13</p> <p>16 however, I cannot point you to a paper</p> <p>17 in ovarian cancer by an ovarian cancer</p> <p>18 researcher that connects initiation to</p> <p>19 progression.</p> <p>20 BY ATTORNEY DAVIDSON: 02:13</p> <p>21 Q. My question is about ovarian</p> <p>22 cancer, though.</p> <p>23 A. Correct.</p> <p>24 Q. And you can't point to anything;</p> <p>25 right? 02:13</p>	<p style="text-align: right;">Page 208</p> <p>1 assessed them with a cell transformation</p> <p>2 assay.</p> <p>3 Q. That's my question.</p> <p>4 Which cell transformation assay did</p> <p>5 they use? 02:17</p> <p>6 A. That's what I'm looking at.</p> <p>7 They used a -- it looks like</p> <p>8 basically an agarose invasion assay, it</p> <p>9 appears, where they cultured the cells on a</p> <p>10 base agarose mix. 02:18</p> <p>11 Q. Are you looking at page 152?</p> <p>12 A. Yes.</p> <p>13 Q. The assay they used was</p> <p>14 Abcam-235698; correct?</p> <p>15 A. I'm not seeing where -- 02:19</p> <p>16 Q. Abcam, A-b-c-a-m, that's the kit</p> <p>17 they used; right?</p> <p>18 A. Yes, it appears. So describing the</p> <p>19 kit information sheet, yeah.</p> <p>20 Q. Are you familiar with that kit? 02:19</p> <p>21 A. Not specifically, no.</p> <p>22 Q. Have you reviewed the kit</p> <p>23 information sheet?</p> <p>24 A. I have not reviewed the kit</p> <p>25 information sheet. 02:19</p>
<p style="text-align: right;">Page 207</p> <p>1 ATTORNEY O'DELL: Object to the</p> <p>2 form.</p> <p>3 THE WITNESS: No, I can't.</p> <p>4 BY ATTORNEY DAVIDSON:</p> <p>5 Q. Let's move on. 02:14</p> <p>6 ATTORNEY DAVIDSON: Let's mark as</p> <p>7 Exhibit 8 Harper 2023.</p> <p>8 (Exhibit Number 8 was marked for</p> <p>9 identification.)</p> <p>10 BY ATTORNEY DAVIDSON: 02:15</p> <p>11 Q. I was asking you earlier about the</p> <p>12 assay that was used in this paper, and you</p> <p>13 said you had to look at the paper to refresh</p> <p>14 your recollection.</p> <p>15 So you've got the paper now. Can 02:16</p> <p>16 you tell me --</p> <p>17 A. Sorry. It was just opening. Okay.</p> <p>18 It's open now.</p> <p>19 Q. Can you tell me what assay was used</p> <p>20 by the authors of the study? 02:17</p> <p>21 A. Which assay? So they used human</p> <p>22 primary ovarian epithelial cells as well as</p> <p>23 ovarian epithelial cells and primary</p> <p>24 fibroblast treated with two different doses</p> <p>25 of talc or titanium dioxide and then 02:17</p>	<p style="text-align: right;">Page 209</p> <p>1 Q. Do you know if that kit information</p> <p>2 sheet says that the assay is validated for</p> <p>3 the purpose of showing malignant</p> <p>4 transformation?</p> <p>5 A. No, I'm not aware if it does say or 02:19</p> <p>6 doesn't say that. I'd be surprised if it</p> <p>7 specifically stated that it's designed to do</p> <p>8 that.</p> <p>9 Q. Does it say that it's validated to</p> <p>10 show neoplastic transformation? 02:20</p> <p>11 ATTORNEY O'DELL: Are you</p> <p>12 asking -- I'm sorry. The question</p> <p>13 was: Does it say it's validated? Are</p> <p>14 you talking about --</p> <p>15 ATTORNEY DAVIDSON: I'll ask the 02:20</p> <p>16 question again, Leigh.</p> <p>17 ATTORNEY O'DELL: Thank you.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. Do you know whether this assay is</p> <p>20 validated to show neoplastic transformation? 02:20</p> <p>21 A. So the assay is meant to show</p> <p>22 cellular transformation.</p> <p>23 Q. Have you looked at the -- have you</p> <p>24 researched this assay to know what it is</p> <p>25 validated to do or not do? 02:20</p>

<p style="text-align: right;">Page 210</p> <p>1 A. I've not specifically looked at 2 the -- if the manufacturer gave any 3 indication of any validation for any 4 purposes. As an RUO product, I would expect 5 then that they likely do not provide any 02:21 6 validation information for any given 7 purpose, other than a product description. 8 Q. And you and I agree that cell 9 transformation is not the same as malignant 10 transformation; right? 02:21 11 A. Cellular transformation is not the 12 same as malignant transformation; however, 13 these agarose-based or agar-based assays, 14 this kit as well as earlier referenced in 15 the paper, the soft agar assay, which is a 02:21 16 longer standing, more traditional method, 17 those are meant to be in vitro mimics that 18 more closely allow malignant transformation 19 potential to be measured because the cells 20 have to move through the agar, which is 02:21 21 more -- again, it's a model system to 22 evaluate and compare neoplastic to 23 potentially malignant cells. 24 Importantly, these assays as a 25 standalone would not necessarily prove the 02:22</p>	<p style="text-align: right;">Page 212</p> <p>1 the Abcam assay saying it's more stable, 2 faster, and more sensitive than the 3 traditional soft agar assay. Both of those 4 kits -- or both of those procedures are 5 meant to mimic malignant transformation in 02:23 6 an in vitro system to allow different 7 experimental conditions to be compared. 8 In the case of this paper, 9 comparing talc and titanium dioxide and 10 perhaps other conditions, I'd have to look 02:23 11 at the methods. 12 Q. So is it your testimony that -- 13 ATTORNEY O'DELL: Excuse me. 14 Jessica, I apologize. I'm not sure 15 Dr. Levy was finished. But if you 02:24 16 are? 17 THE WITNESS: I'm finished. 18 ATTORNEY O'DELL: Sorry. Go 19 ahead. 20 ATTORNEY DAVIDSON: I think he was 02:24 21 finished. 22 BY ATTORNEY DAVIDSON: 23 Q. Is it your testimony today that 24 it's accurate, based on the results of this 25 assay, to say: To use the phrase induces 02:24</p>
<p style="text-align: right;">Page 211</p> <p>1 ability of any given cell to be malignant. 2 But the point of the paper is to show the 3 relative differences in this assay of 4 different treatment conditions. 5 Q. Is it your testimony that it would 02:22 6 be accurate to use an Ab-235698 assay, and 7 based on the results of that assay, to say 8 that something induces malignant 9 transformation? 10 ATTORNEY O'DELL: Object to the 02:22 11 form. 12 THE WITNESS: So this particular 13 kit -- the kit version of this as well 14 as the soft agar assay also mentioned 15 in the paper is meant to be an in 02:22 16 vitro model system for malignant 17 transformation. 18 BY ATTORNEY DAVIDSON: 19 Q. I thought you said you're not 20 familiar with this kit? 02:23 21 A. I'm describing the way it's 22 presented in the paper, which is the kit 23 information sheet, as you just described, 24 with that product number, and then earlier 25 in that same column indicating why they used 02:23</p>	<p style="text-align: right;">Page 213</p> <p>1 malignant transformation in normal human 2 primary ovarian epithelial cells? 3 That's my question. 4 ATTORNEY O'DELL: Object to the 5 form. 02:24 6 THE WITNESS: Based on the 7 findings in the paper with the assays 8 that were produced and the purposes 9 behind the assays, the authors have 10 drawn the conclusion as stated in the 02:24 11 title. 12 BY ATTORNEY DAVIDSON: 13 Q. I'm aware. I'm asking you if 14 that's accurate. 15 A. Based on what's shown in the paper 02:24 16 and the results shown, it appears that 17 they're drawing a reasonably accurate 18 conclusion, again, based on the information 19 here in this paper. 20 Q. So you think without having 02:25 21 actually researched this assay, that this 22 assay suffices to show malignant 23 transformation? 24 ATTORNEY O'DELL: Object to the 25 form. 02:25</p>

<p style="text-align: right;">Page 214</p> <p>1 THE WITNESS: So as close to being</p> <p>2 able to do so in an in vitro model</p> <p>3 system, yes.</p> <p>4 BY ATTORNEY DAVIDSON:</p> <p>5 Q. I thought you testified earlier 02:25</p> <p>6 that in an in vitro model system, you can't</p> <p>7 show malignant transformation?</p> <p>8 A. No. I testified earlier that you</p> <p>9 can't prove malignant transformation that</p> <p>10 would occur in a disease state. But, again, 02:25</p> <p>11 in a model system, you're modeling as</p> <p>12 closely as possible a biological process</p> <p>13 under study, generally something that you</p> <p>14 can't do either in a live animal or in a</p> <p>15 person. You develop conditions that are 02:25</p> <p>16 reasonably close or as close as possible,</p> <p>17 and then you have to draw conclusions from</p> <p>18 there. There would be an iterative process</p> <p>19 to either replicate those studies</p> <p>20 independently, typical of the scientific 02:26</p> <p>21 method, or determine -- extend those studies</p> <p>22 to determine if the markers and other things</p> <p>23 that are observed are, in fact, indicative</p> <p>24 of malignant transformation.</p> <p>25 Q. You're taking it on faith from 02:26</p>	<p style="text-align: right;">Page 216</p> <p>1 understand the intent of the assay.</p> <p>2 BY ATTORNEY DAVIDSON:</p> <p>3 Q. How do scientists normally assess</p> <p>4 whether cells are malignant?</p> <p>5 A. I would say the most rigorous, in 02:27</p> <p>6 my opinion, would be through xenograph</p> <p>7 models, meaning the implantation of human</p> <p>8 cells, whether they be treated or from</p> <p>9 primary tumors, into mouse models;</p> <p>10 therefore, the tumor initiation progression 02:27</p> <p>11 and the metastatic potential can all be</p> <p>12 viewed in the context of an entire organism.</p> <p>13 But as I mentioned earlier, there</p> <p>14 are various levels of sophistication for in</p> <p>15 vitro assays to look at cellular invasion. 02:28</p> <p>16 I would say there's a rich body of</p> <p>17 literature that if a cell, when put on</p> <p>18 either another monolayer or</p> <p>19 three-dimensional support where that cell</p> <p>20 then invades, either directly or via 02:28</p> <p>21 cellular processes, that's considered a</p> <p>22 measure of malignant transformation or</p> <p>23 malignant potential.</p> <p>24 Depending on the experimental</p> <p>25 design and the interpretation, the authors 02:28</p>
<p style="text-align: right;">Page 215</p> <p>1 these authors that this assay is capable of</p> <p>2 doing that?</p> <p>3 ATTORNEY O'DELL: Object to the</p> <p>4 form.</p> <p>5 THE WITNESS: As in any scientific 02:26</p> <p>6 literature, the body of that</p> <p>7 literature is taken on faith and then</p> <p>8 allowed, by evaluation of readers and</p> <p>9 reviewers and others, to -- as to how</p> <p>10 they weight the evidence that's 02:26</p> <p>11 observed in the paper.</p> <p>12 BY ATTORNEY DAVIDSON:</p> <p>13 Q. In order to weight the evidence in</p> <p>14 the paper, you need to understand the</p> <p>15 methodologies used; right? 02:26</p> <p>16 A. Sure. At least in terms of what</p> <p>17 those methodologies -- the purposes of those</p> <p>18 methodologies and what they're showing.</p> <p>19 Q. So in order to really understand</p> <p>20 whether the methodology here was proper, 02:27</p> <p>21 you'd need to understand exactly what this</p> <p>22 assay was, wouldn't you?</p> <p>23 ATTORNEY O'DELL: Object to the</p> <p>24 form.</p> <p>25 THE WITNESS: You'd have to 02:27</p>	<p style="text-align: right;">Page 217</p> <p>1 draw conclusions as to does that reach a --</p> <p>2 does that suffice for what they would</p> <p>3 consider as malignant transformation.</p> <p>4 Q. When you say "what they would</p> <p>5 consider as malignant transformation," isn't 02:28</p> <p>6 malignant transformation an objective</p> <p>7 scientific term?</p> <p>8 A. Correct. It means the cell is</p> <p>9 transformed to allow or support growth away</p> <p>10 from the initial site in terms of cancer 02:28</p> <p>11 biology. And these in vitro assays, the bar</p> <p>12 that these authors have set is that if those</p> <p>13 same cells are able to invade through an</p> <p>14 agarose-based assay, that is indicative of</p> <p>15 that malignant potential and, therefore, 02:29</p> <p>16 they're characterizing it as malignant</p> <p>17 transformation.</p> <p>18 Q. When you say "they're</p> <p>19 characterizing it as a malignant</p> <p>20 transformation," is a malignant 02:29</p> <p>21 transformation a subjective term that can be</p> <p>22 characterized in different ways by different</p> <p>23 people?</p> <p>24 ATTORNEY O'DELL: Object to the</p> <p>25 form. Asked and answered. 02:29</p>

<p style="text-align: right;">Page 218</p> <p>1 THE WITNESS: Malignant 2 transformation, as I've said a few 3 times, is -- indicates that a cell is 4 able to grow away from its primary 5 site. So when the authors are calling 02:29 6 something that is -- you have the 7 transformation event, meaning the cell 8 has the potential to do that, and then 9 you have the metastatic event where 10 the cell actually does -- it becomes 02:29 11 malignant or becomes metastatic; it 12 actually moves away. So it's 13 semantics to say: Does transformation 14 mean only the potential to invade into 15 a substrate or into a tissue area, or 02:30 16 is it malignant transformation when 17 you evaluate it after the fact because 18 it's been detected at a remote site, 19 say, in a lymph node or others if we 20 look at this in a whole person. 02:30 21 BY ATTORNEY DAVIDSON: 22 Q. Does this study show anything about 23 invading? 24 A. That is the purpose of that agar 25 assay. That's to mimic the cells invading 02:30</p>	<p style="text-align: right;">Page 220</p> <p>1 measured the assay after a week. They did 2 not perform time points to -- at least at a 3 glance here, I don't believe they performed 4 time points to measure the timing of that 5 transformation or whether it was different 02:32 6 over time. They only report the results on 7 a percentage of transformed cells at dose, 8 not time, and that was after six days. 9 There was no timing information as far as 10 the timing of that transformation that was 02:32 11 reported in the paper. Indicating that that 12 transformation would have occurred at any 13 point from the initiation of the assay to 14 just before measurement, but there was no 15 investigation done as to -- at least not 02:32 16 reported that I see. 17 I'm looking at the results. They 18 mainly based this based on colony formation. 19 Q. I just want to make sure I 20 understand your testimony. 02:33 21 Your testimony is that the authors 22 of this paper claim that they found 23 malignant transformation after six to eight 24 days? 25 A. They performed treatments of the 02:33</p>
<p style="text-align: right;">Page 219</p> <p>1 into a substrate. That's the nature of that 2 assay. Growing in that three dimensional 3 space. Most cells are inhibited by contact 4 inhibition. One of the hallmarks of 5 malignant transformation is you lose that 02:30 6 contact inhibition. But that can also be 7 that neoplastic transformation, a benign 8 transformation where the cell's just 9 aberrantly growing. 10 So, generally, you look more at the 02:30 11 invasion, meaning that the cells are 12 actually invading through a substrate. 13 This agar assay is meant to mimic, 14 again, in an in vitro setting, certainly 15 does not have all of the components of a 02:31 16 biological setting. And it certainly 17 doesn't mean it's a perfect model system. 18 Q. How long did it take these cells to 19 transform in this study? 20 A. They did a -- I thought I saw the 02:31 21 data. Six to eight days. Incubated six to 22 eight days? Yeah. About a week, roughly. 23 Q. It took a week for the malignant 24 transformation? 25 A. No. They performed -- they 02:31</p>	<p style="text-align: right;">Page 221</p> <p>1 cells with talcum powder or titanium dioxide 2 for 72 hours and then placed the cells into 3 the agar assay for six days and then 4 measured the colormetric assay, which is 5 part of the Abcam kit, as well as the colony 02:34 6 formation and compared the control, which 7 was the titanium dioxide to the talc 8 treatment under different cell lines. And 9 then followed that up with some 10 immunohistochemistry on sections of those 02:34 11 colonies for two specific markers. 12 Q. What's anchorage-independent 13 growth? 14 ATTORNEY O'DELL: We didn't hear 15 that clearly, Jessica. Would you 02:35 16 please repeat the question? 17 BY ATTORNEY DAVIDSON: 18 Q. What is anchorage-independent 19 growth? 20 A. Cells that are able to grow without 02:35 21 being anchored to a surface or a matrix. 22 Q. Is anchorage-independent growth 23 sufficient evidence to show malignant 24 transformation? 25 A. Potentially. It's certainly -- 02:35</p>

<p style="text-align: right;">Page 222</p> <p>1 it's certainly a marker of . . .</p> <p>2 Q. I understand you're saying it's a</p> <p>3 marker of, but is it sufficient to show</p> <p>4 malignancy?</p> <p>5 A. It would depend on the cell line, 02:35</p> <p>6 and it would depend on -- that would require</p> <p>7 a different experiment or a further</p> <p>8 experiment to prove malignancy.</p> <p>9 Q. Can you look at Figure 4.</p> <p>10 A. Uh-huh. 02:36</p> <p>11 Q. Where does it say in Figure 4 that</p> <p>12 the staining was done after six to eight</p> <p>13 days?</p> <p>14 A. I thought the method said that the</p> <p>15 staining in Figure 4 was done from the -- 02:36</p> <p>16 oh, I see.</p> <p>17 So looking at the method -- so my</p> <p>18 first reading of this was that they used</p> <p>19 the -- essentially fixed and sectioned the</p> <p>20 colonies from the agar assay, but in reading 02:37</p> <p>21 this now, it appears they performed</p> <p>22 immunohistochemistry on the normal human</p> <p>23 primary epithelial cells, the ovarian</p> <p>24 epithelial cells, before treatment and after</p> <p>25 treatment for 72 hours. They reported 02:37</p>	<p style="text-align: right;">Page 224</p> <p>1 can happen very rapidly. It can</p> <p>2 happen over long periods of time.</p> <p>3 But generally, I see no</p> <p>4 mechanistic or plausible reason why it</p> <p>5 couldn't be much, much faster than 02:39</p> <p>6 those 72 hours, or in other</p> <p>7 conditions, much longer. I think</p> <p>8 that's a relatively artificial or</p> <p>9 arbitrary time number.</p> <p>10 BY ATTORNEY DAVIDSON: 02:39</p> <p>11 Q. So you think regular cells could</p> <p>12 transform to malignant cells after they're</p> <p>13 treated in less than 72 hours?</p> <p>14 A. Depending on the treatment.</p> <p>15 Certainly it did. Again, it depends on the 02:39</p> <p>16 mechanism of those transformative events.</p> <p>17 Q. Can you point me to any example of</p> <p>18 a study in which it was found that cells</p> <p>19 were converted into malignant cells in less</p> <p>20 than 72 hours? 02:39</p> <p>21 ATTORNEY O'DELL: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: Again, it would be</p> <p>24 very dependent on exactly how it was</p> <p>25 designed and exactly how it was 02:40</p>
<p style="text-align: right;">Page 223</p> <p>1 changes in staining with P53 and KI67.</p> <p>2 So the agar assay was done for six</p> <p>3 days. It looks like the secondary assay</p> <p>4 shown in Figure 4 was a treatment for</p> <p>5 72 hours. 02:37</p> <p>6 Q. Is 72 hours sufficient time to</p> <p>7 convert normal cells into malignant cells?</p> <p>8 A. Under these specific experimental</p> <p>9 conditions and without those specific time</p> <p>10 points done, we can't say. 02:38</p> <p>11 Q. Have you ever seen another paper in</p> <p>12 your entire scientific career in which</p> <p>13 normal cells were turned into malignant</p> <p>14 cells in 72 hours?</p> <p>15 ATTORNEY O'DELL: Object to the 02:38</p> <p>16 form.</p> <p>17 THE WITNESS: So the timing -- I'm</p> <p>18 thinking through different literature</p> <p>19 or papers or studies that I recall.</p> <p>20 I'd have to consider it and give that 02:38</p> <p>21 some thought. I cannot think of a</p> <p>22 reason why 72 hours, more or less,</p> <p>23 would have any reasoning behind the --</p> <p>24 it really depends on the mechanism of</p> <p>25 transformation in those events. It 02:39</p>	<p style="text-align: right;">Page 225</p> <p>1 measured. So back to the xenograph</p> <p>2 example I gave before, certainly</p> <p>3 72 hours would be a short time frame</p> <p>4 for that model to develop. But you're</p> <p>5 asking a very different question. 02:40</p> <p>6 The question you're asking is:</p> <p>7 Does it -- can you get -- can cells be</p> <p>8 transformed in less than 72 hours to</p> <p>9 have metastatic potential or malignant</p> <p>10 potential? Again, there's no 02:40</p> <p>11 plausible reason why that</p> <p>12 transformation cannot occur in a very</p> <p>13 short time frame, but as far as --</p> <p>14 BY ATTORNEY DAVIDSON:</p> <p>15 Q. I'm actually asking -- 02:40</p> <p>16 ATTORNEY O'DELL: I'm sorry. He's</p> <p>17 not finished.</p> <p>18 THE WITNESS: But pointing you to</p> <p>19 a study that proves from start to</p> <p>20 finish, from the transformation of the 02:40</p> <p>21 cells to proving that they are</p> <p>22 malignant and have that metastatic</p> <p>23 potential, that, I'm not aware of.</p> <p>24 But I --</p> <p>25 BY ATTORNEY O'DELL:</p>

<p style="text-align: right;">Page 226</p> <p>1 Q. So you can't --</p> <p>2 ATTORNEY O'DELL: I'm sorry. He</p> <p>3 wasn't finished.</p> <p>4 BY ATTORNEY DAVIDSON:</p> <p>5 Q. You just always seem like you're 02:40</p> <p>6 stopping, and then you keep going.</p> <p>7 ATTORNEY O'DELL: You may</p> <p>8 continue.</p> <p>9 THE WITNESS: No, I can't point</p> <p>10 you to a study where from cell 02:40</p> <p>11 treatment through proof of metastatic</p> <p>12 or malignant potential occurred in</p> <p>13 72 hours or less.</p> <p>14 BY ATTORNEY DAVIDSON:</p> <p>15 Q. So this is the only paper you've 02:41</p> <p>16 ever read in your entire experience as a</p> <p>17 scientist that claimed to demonstrate</p> <p>18 malignant transformation within 72 hours of</p> <p>19 treatment; correct?</p> <p>20 ATTORNEY O'DELL: Object to the 02:41</p> <p>21 form.</p> <p>22 THE WITNESS: No, that's not</p> <p>23 correct. What this study is showing</p> <p>24 is the markers for having that</p> <p>25 transformation. I would be confident 02:41</p>	<p style="text-align: right;">Page 228</p> <p>1 ATTORNEY O'DELL: Objection to the</p> <p>2 form. Asked and answered.</p> <p>3 THE WITNESS: I'd have to get back</p> <p>4 to you on that.</p> <p>5 BY ATTORNEY DAVIDSON: 02:42</p> <p>6 Q. Okay. I just want to clarify;</p> <p>7 right? These authors didn't say in their</p> <p>8 title: Biomarkers of potential malignant</p> <p>9 transformation were shown in our paper.</p> <p>10 Just to look again, they said: 02:43</p> <p>11 Talc powder induces malignant transformation</p> <p>12 in normal human primary ovarian epithelial</p> <p>13 cells; correct?</p> <p>14 A. Your reading of the title is</p> <p>15 correct. 02:44</p> <p>16 Q. And you take no issue with that</p> <p>17 title?</p> <p>18 A. Do I take issue with the title?</p> <p>19 No, I don't take issue with the title.</p> <p>20 Q. And let's go to the conclusion. 02:44</p> <p>21 A. Okay. Page 156.</p> <p>22 Q. This study clearly demonstrates</p> <p>23 that talcum powder exposure induced</p> <p>24 malignant transformation of normal ovarian</p> <p>25 cells and culture, which adds to the strong 02:44</p>
<p style="text-align: right;">Page 227</p> <p>1 that there's other studies that used</p> <p>2 other markers for cellular</p> <p>3 transformation that occurred in time</p> <p>4 frames at or less than 72 hours.</p> <p>5 Again, I would have to specifically 02:41</p> <p>6 review for those types of studies.</p> <p>7 But my confidence comes from,</p> <p>8 again, mechanistically the treatment</p> <p>9 or methodology to perturb a cell to</p> <p>10 allow it to undergo a malignant 02:41</p> <p>11 transformation can happen on a very</p> <p>12 rapid time course. Some examples of</p> <p>13 those rapid time courses would be done</p> <p>14 with radiation or done with severe</p> <p>15 mutagenesis or done with other 02:42</p> <p>16 treatments. The 72-hour window is not</p> <p>17 a -- again, there's nothing</p> <p>18 technically or mechanistically that</p> <p>19 would require that time frame to be</p> <p>20 longer or shorter. 02:42</p> <p>21 BY ATTORNEY DAVIDSON:</p> <p>22 Q. I'm just asking you for a paper.</p> <p>23 Name one paper you've read where malignant</p> <p>24 transformation was claimed in 72 hours or</p> <p>25 less. 02:42</p>	<p style="text-align: right;">Page 229</p> <p>1 evidence of causal relationship between</p> <p>2 genital use of talcum powder and ovarian</p> <p>3 cancer.</p> <p>4 Do you agree with the authors that</p> <p>5 this study clearly demonstrates -- there's a 02:44</p> <p>6 typo there -- that talcum powder exposure</p> <p>7 induced malignant transformation of normal</p> <p>8 ovarian cells in culture?</p> <p>9 ATTORNEY O'DELL: Object to the</p> <p>10 form. 02:44</p> <p>11 THE WITNESS: As with any</p> <p>12 scientific study, as a scientist, I</p> <p>13 would not use that one sentence or</p> <p>14 that brief paragraph. What I would</p> <p>15 agree with is the totality of the 02:45</p> <p>16 paragraph, if you include the next</p> <p>17 sentence that starts with: Therefore,</p> <p>18 we consider that future studies should</p> <p>19 aim to evaluate this finding utilizing</p> <p>20 animal models. And -- 02:45</p> <p>21 BY ATTORNEY DAVIDSON:</p> <p>22 Q. Does this study --</p> <p>23 ATTORNEY O'DELL: Excuse me. He's</p> <p>24 not finished.</p> <p>25 THE WITNESS: Taking out one 02:45</p>

<p style="text-align: right;">Page 230</p> <p>1 sentence of the conclusions. And so I</p> <p>2 would consider the conclusions and the</p> <p>3 totality of the work rather than</p> <p>4 whether or not one sentence is an</p> <p>5 accurate representation of the work. 02:45</p> <p>6 BY ATTORNEY DAVIDSON:</p> <p>7 Q. That's great, but that's not my</p> <p>8 question.</p> <p>9 My question is: Do you think this</p> <p>10 study clearly demonstrates that talcum 02:45</p> <p>11 powder exposure induced malignant</p> <p>12 transformation of normal ovarian cells?</p> <p>13 A. This study shows data supporting</p> <p>14 that the cells may have been malignantly</p> <p>15 transformed. 02:46</p> <p>16 Q. But it does not clearly demonstrate</p> <p>17 that talcum powder exposure induced</p> <p>18 malignant transformation of normal ovarian</p> <p>19 cells; correct?</p> <p>20 A. Again, I can't refute what the 02:46</p> <p>21 authors are saying given that what they</p> <p>22 defined -- their definition of malignant</p> <p>23 transformation in this in vitro model as</p> <p>24 described in the paper, which is where</p> <p>25 they're drawing this conclusion from, and I 02:46</p>	<p style="text-align: right;">Page 232</p> <p>1 THE WITNESS: This paper shows a</p> <p>2 significant difference in cells</p> <p>3 treated with talc and not talc and</p> <p>4 warrants further investigation to</p> <p>5 validate that from a malignant 02:47</p> <p>6 transformation perspective.</p> <p>7 BY ATTORNEY DAVIDSON:</p> <p>8 Q. I understand.</p> <p>9 A. Your question doesn't have a</p> <p>10 yes-or-no answer. 02:47</p> <p>11 Q. My question doesn't have a yes or</p> <p>12 no answer? You can't tell me whether this</p> <p>13 paper clearly demonstrates that talcum</p> <p>14 powder exposure induced malignant</p> <p>15 transformation of normal ovarian cells? 02:47</p> <p>16 Does it or doesn't it?</p> <p>17 A. Based on the data in the paper and</p> <p>18 what the authors claim, that is their</p> <p>19 conclusion.</p> <p>20 Q. Do you believe that this paper 02:47</p> <p>21 clearly demonstrates that talcum powder</p> <p>22 exposure induced malignant transformation?</p> <p>23 ATTORNEY O'DELL: Asked and</p> <p>24 answered.</p> <p>25 THE WITNESS: Again, in the in 02:47</p>
<p style="text-align: right;">Page 231</p> <p>1 think rightly recognize that further studies</p> <p>2 have to exist.</p> <p>3 So I can't give you an answer to</p> <p>4 your question because you're -- that's not</p> <p>5 an accurate representation of what the paper 02:46</p> <p>6 is trying to say.</p> <p>7 Q. There's an accurate --</p> <p>8 ATTORNEY O'DELL: Excuse me. He's</p> <p>9 not finished.</p> <p>10 THE WITNESS: I realize pulling 02:46</p> <p>11 out those words and asking: Does this</p> <p>12 paper show that? But it's --</p> <p>13 BY ATTORNEY DAVIDSON:</p> <p>14 Q. Forget what the author is saying,</p> <p>15 Doctor. I'm just asking you a question -- 02:46</p> <p>16 ATTORNEY O'DELL: He's not</p> <p>17 finished.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. Do you think this paper</p> <p>20 demonstrates that talcum powder exposure 02:46</p> <p>21 induced malignant transformation of normal</p> <p>22 ovarian cells?</p> <p>23 ATTORNEY O'DELL: Dr. Levy, you</p> <p>24 were cut off. You may finish your</p> <p>25 answer. 02:47</p>	<p style="text-align: right;">Page 233</p> <p>1 vitro model system that was used,</p> <p>2 under the conditions in this paper,</p> <p>3 the authors' conclusions were</p> <p>4 reasonable.</p> <p>5 BY ATTORNEY DAVIDSON: 02:48</p> <p>6 Q. Do you agree with the authors, that</p> <p>7 this study clearly demonstrates that talcum</p> <p>8 powder exposure induced malignant</p> <p>9 transformation?</p> <p>10 A. Again, I find the authors' 02:48</p> <p>11 conclusions in the context of this paper to</p> <p>12 be reasonable.</p> <p>13 Q. And you disagree with the peer</p> <p>14 reviewers who found the authors' conclusions</p> <p>15 to be outrageous? 02:48</p> <p>16 ATTORNEY O'DELL: Object to the</p> <p>17 form.</p> <p>18 THE WITNESS: Again --</p> <p>19 ATTORNEY O'DELL: Facts outside of</p> <p>20 evidence. 02:48</p> <p>21 THE WITNESS: I haven't had the</p> <p>22 opportunity to review both the version</p> <p>23 of the paper that those reviewers saw</p> <p>24 as well as the specific comments that</p> <p>25 they provided. For the -- 02:48</p>

<p style="text-align: right;">Page 234</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Do you intend to ask --</p> <p>3 ATTORNEY O'DELL: I'm sorry. He's</p> <p>4 not finished.</p> <p>5 THE WITNESS: For all I know -- 02:48</p> <p>6 ATTORNEY DAVIDSON: He's never --</p> <p>7 THE WITNESS: -- this paper is</p> <p>8 substantially revised from the version</p> <p>9 that those comments were made.</p> <p>10 BY ATTORNEY DAVIDSON: 02:48</p> <p>11 Q. It actually is not.</p> <p>12 But do you intend to ask counsel</p> <p>13 after this deposition for all the drafts and</p> <p>14 the peer-reviewed comments?</p> <p>15 A. I'd welcome the opportunity to see 02:49</p> <p>16 those.</p> <p>17 Q. Your counsel has them.</p> <p>18 ATTORNEY DAVIDSON: Are we up to</p> <p>19 Exhibit 9, Noah?</p> <p>20 ATTORNEY EPSTEIN: Yes. 02:49</p> <p>21 ATTORNEY DAVIDSON: Let's mark</p> <p>22 Taher 2019 as Exhibit 9.</p> <p>23 (Exhibit Number 9 was marked for</p> <p>24 identification.)</p> <p>25 ATTORNEY DAVIDSON: Noah, make 02:50</p>	<p style="text-align: right;">Page 236</p> <p>1 that to Noah?</p> <p>2 ATTORNEY O'DELL: I didn't hear --</p> <p>3 ATTORNEY EPSTEIN: I'll put it in</p> <p>4 the chat.</p> <p>5 ATTORNEY DAVIDSON: I said that 02:51</p> <p>6 three minutes ago. I said we're</p> <p>7 putting in a different version.</p> <p>8 ATTORNEY O'DELL: You said -- you</p> <p>9 asked him if it was the right version.</p> <p>10 ATTORNEY DAVIDSON: No. I told 02:51</p> <p>11 him it was the wrong version.</p> <p>12 ATTORNEY O'DELL: I'm sorry. I</p> <p>13 misunderstood what you were trying to</p> <p>14 say. I'm happy to put the right</p> <p>15 version in the chat if you don't have 02:52</p> <p>16 it.</p> <p>17 ATTORNEY DAVIDSON: I've got it.</p> <p>18 This is Noah's second deposition ever.</p> <p>19 I would say he's -- Leigh, were you at</p> <p>20 the first or was that Michelle? 02:52</p> <p>21 ATTORNEY O'DELL: I'm not sure.</p> <p>22 ATTORNEY DAVIDSON: I think that</p> <p>23 was Michelle. I think you were</p> <p>24 probably at Sugarman. He's improved</p> <p>25 by leaps and bounds, and we're all 02:52</p>
<p style="text-align: right;">Page 235</p> <p>1 sure it's the right version.</p> <p>2 ATTORNEY EPSTEIN: Yeah, I just</p> <p>3 pulled it. Let me . . .</p> <p>4 ATTORNEY DAVIDSON: I don't know</p> <p>5 why the wrong version was sent to me.</p> <p>6 It's not the right version.</p> <p>7 BY ATTORNEY DAVIDSON:</p> <p>8 Q. Before we move on, Dr. Levy, would</p> <p>9 you be comfortable putting your name as a</p> <p>10 co-author of a paper that claimed to have 02:50</p> <p>11 proven malignant transformation based on the</p> <p>12 data we just saw in the Harper paper?</p> <p>13 ATTORNEY O'DELL: Object to the</p> <p>14 form. Incomplete hypothetical.</p> <p>15 THE WITNESS: It's a hypothetical 02:50</p> <p>16 question. If I was -- I don't know.</p> <p>17 Again, it would depend on the totality</p> <p>18 of the experiments. I would certainly</p> <p>19 value the opinions of peers during</p> <p>20 that review process. 02:51</p> <p>21 ATTORNEY O'DELL: I believe the</p> <p>22 paper that's put in the chat was not</p> <p>23 the final; is that right?</p> <p>24 ATTORNEY DAVIDSON: That's what I</p> <p>25 just told -- didn't you hear me say 02:51</p>	<p style="text-align: right;">Page 237</p> <p>1 very proud.</p> <p>2 (Discussion off the record.)</p> <p>3 ATTORNEY O'DELL: I have no</p> <p>4 criticism of Noah. I was just looking</p> <p>5 for the right version. 02:52</p> <p>6 So, Noah, I hope you didn't take</p> <p>7 it that way.</p> <p>8 ATTORNEY DAVIDSON: We have a</p> <p>9 paralegal who keeps sending us the old</p> <p>10 Taher. 02:52</p> <p>11 ATTORNEY O'DELL: I understand</p> <p>12 your pain. I have one that keeps</p> <p>13 sending me the old Phung, and that</p> <p>14 doesn't work either. So we</p> <p>15 understand. 02:52</p> <p>16 BY ATTORNEY DAVIDSON:</p> <p>17 Q. Let me try to make that</p> <p>18 parenthetical a little more concrete before</p> <p>19 we move on to Taher.</p> <p>20 Would you be comfortable putting 02:53</p> <p>21 your name on a paper that claims to have</p> <p>22 clearly demonstrated malignant</p> <p>23 transformation based solely on IHC staining</p> <p>24 and the Abcam assay used here?</p> <p>25 ATTORNEY O'DELL: Object to the 02:53</p>

<p style="text-align: right;">Page 238</p> <p>1 form.</p> <p>2 THE WITNESS: Again, it's --</p> <p>3 possibly.</p> <p>4 BY ATTORNEY DAVIDSON:</p> <p>5 Q. Okay. Nothing more would need to 02:53</p> <p>6 be done for you to be comfortable putting</p> <p>7 your name on such a paper?</p> <p>8 ATTORNEY O'DELL: Object to the</p> <p>9 form. Incomplete hypothetical.</p> <p>10 THE WITNESS: I would have to 02:53</p> <p>11 evaluate that at the time of the</p> <p>12 experiments and the results and being</p> <p>13 involved in that process. I wasn't</p> <p>14 involved in this, and so inappropriate</p> <p>15 for me to say whether or not I would 02:54</p> <p>16 be a co-author or where in the</p> <p>17 co-authorship it would belong.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. Just so you know, it is appropriate</p> <p>20 to ask experts hypothetical questions. 02:54</p> <p>21 That's one of the rules of the Federal Rules</p> <p>22 of Procedure. So it is appropriate to ask</p> <p>23 an expert if he would be comfortable with</p> <p>24 something like this.</p> <p>25 I'm trying to understand what would 02:54</p>	<p style="text-align: right;">Page 240</p> <p>1 necessarily what would have to</p> <p>2 be done and not have to be done.</p> <p>3 It would be evaluating the</p> <p>4 totality of that work in the</p> <p>5 context of these experiments and 02:54</p> <p>6 discussion with the other</p> <p>7 authors and participants in that</p> <p>8 experiment. The writing of the</p> <p>9 paper and results is a small</p> <p>10 process, especially of that that 02:55</p> <p>11 warrants co-authors. So that's</p> <p>12 why I say, therefore, my answer</p> <p>13 is possibly.")</p> <p>14 BY ATTORNEY DAVIDSON:</p> <p>15 Q. So is the same true of this study? 02:57</p> <p>16 That you can't really evaluate its</p> <p>17 reliability without reviewing all the tests</p> <p>18 and results that they conducted and set</p> <p>19 forth in their paper?</p> <p>20 ATTORNEY O'DELL: Objection. 02:57</p> <p>21 Asked and answered.</p> <p>22 THE WITNESS: No, I wouldn't</p> <p>23 characterize it as that.</p> <p>24 BY ATTORNEY DAVIDSON:</p> <p>25 Q. Why is that? 02:57</p>
<p style="text-align: right;">Page 239</p> <p>1 have to be done in a study for you to be</p> <p>2 comfortable putting your name on a paper</p> <p>3 that claims to have clearly demonstrated</p> <p>4 malignant transformation.</p> <p>5 What would you want to be done on 02:54</p> <p>6 such a paper for you to feel comfortable</p> <p>7 using the term "clearly demonstrated</p> <p>8 malignant transformation"?</p> <p>9 A. Again, it's not necessarily what</p> <p>10 would have to be done or not have to be 02:54</p> <p>11 done. It would be, again, being able to</p> <p>12 evaluate the totality of that work in the</p> <p>13 context of the experiments and having that</p> <p>14 discussion with the other authors and</p> <p>15 participants in that experiment. The 02:54</p> <p>16 writing of the paper and the summary of</p> <p>17 those results is only a small part of the</p> <p>18 overall process, especially of that that</p> <p>19 warrants co-authorship. So that's why I</p> <p>20 say, therefore, my answer is possibly. 02:55</p> <p>21 ATTORNEY DAVIDSON: Can you read</p> <p>22 back that answer.</p> <p>23 (Record read by the Certified</p> <p>24 Stenographer as follows:</p> <p>25 "ANSWER:It's not 02:54</p>	<p style="text-align: right;">Page 241</p> <p>1 A. Because the scientific literature</p> <p>2 is a -- as you know, is a continually</p> <p>3 evolving set of observations and tests and</p> <p>4 experiments. So we're asking very discrete</p> <p>5 questions in different ways and that 02:57</p> <p>6 evaluating this paper as it stands is what</p> <p>7 we've been discussing. And we've, you know,</p> <p>8 asked and answered a number of questions</p> <p>9 around that. It's a completely separate</p> <p>10 discussion as to how do we change this study 02:58</p> <p>11 to warrant co-authorship or participation in</p> <p>12 the study. So they're independent from each</p> <p>13 other.</p> <p>14 So I'm not sure -- so the -- to</p> <p>15 answer it differently, the level of rigor 02:58</p> <p>16 that I would apply in answering your</p> <p>17 question about being a co-author and what</p> <p>18 would have to be done on a study is a</p> <p>19 different question than asking what</p> <p>20 information or inferences or observations 02:58</p> <p>21 can be drawn from a publication.</p> <p>22 Q. To what extent are you relying on</p> <p>23 Harper 2023 in forming your opinions in this</p> <p>24 case?</p> <p>25 A. As a part of the overall literature 02:58</p>

<p style="text-align: right;">Page 242</p> <p>1 review, and as a new piece of literature 2 added after the writing of the last report 3 to contribute to, as stated in the report, 4 some of the -- some of the mechanistic and 5 in vitro support for the overall biological 02:59 6 plausibility. 7 Q. I assume if your opinions on the 8 paper change after you read the 9 peer-reviewed comments, that you'll either 10 submit a amended report or otherwise let us 02:59 11 know, and I think we can move on. 12 ATTORNEY O'DELL: Object to the 13 commentary. 14 BY ATTORNEY DAVIDSON: 15 Q. Let's talk about the Taher paper, 02:59 16 which we've put in the chat, and I think you 17 now have the right one. I wanted to look at 18 page 98. If you'd like, we can put it up on 19 the screen. 20 A. I have it. 03:00 21 Q. I wanted to look in particular at 22 Table 4. 23 Do you know what GRADE is, capital 24 G-R-A-D-E? 25 A. Not off the top of my head. 03:00</p>	<p style="text-align: right;">Page 244</p> <p>1 Q. And did you notice this when you 2 read the Taher paper that you cited in your 3 report? 4 A. I don't specifically recall 5 noticing this, but I understand what it's 03:02 6 saying. 7 Q. Did you mention in your report when 8 you cited the Taher paper: Oh, by the way, 9 the authors say very low certainty of the 10 evidence, we have very little confidence in 03:02 11 our findings? 12 ATTORNEY O'DELL: Object to the 13 form. 14 THE WITNESS: So the -- I think 15 you also have to consider the 03:02 16 footnotes C and D as well as part of 17 that. 18 BY ATTORNEY DAVIDSON: 19 Q. My question was -- wait a minute, 20 Doctor, you've got to answer my questions. 03:02 21 ATTORNEY O'DELL: No -- 22 BY ATTORNEY DAVIDSON: 23 Q. My question was: Did you mention 24 in your report -- no, no, no. If you want 25 to talk about what else it says in there, 03:02</p>
<p style="text-align: right;">Page 243</p> <p>1 Q. Do you see in Table 4 where the 2 authors rate the certainty of the evidence 3 in their meta-analysis? 4 A. The certainty of the evidence, yes, 5 based on GRADE where they note it as very 03:00 6 low? 7 Q. Yes. 8 A. I see that. 9 Q. And do you see how, if you have 10 either better eyesight than I do or reading 03:01 11 glasses, they explain GRADE -- what GRADE 12 is, GRADE Working Group grades of evidence 13 are a high certainty, low certainty, and 14 very low certainty? 15 Do you see that? 03:01 16 A. I see that. 17 Q. Footnote, maybe it's an A? 18 A. Yeah, it is A. 19 Q. And can you read for me what they 20 say after "very low certainty"? In 03:01 21 parentheses. 22 A. We have very little confidence in 23 the effect estimate. The true effect is 24 likely to be substantially different from 25 the estimate of effect. 03:01</p>	<p style="text-align: right;">Page 245</p> <p>1 Leigh is going to ask you any questions she 2 wants. 3 ATTORNEY O'DELL: Don't instruct 4 the witness, Jessica. Just ask your 5 question. He can respond to your 03:03 6 question. 7 ATTORNEY DAVIDSON: No, he cannot 8 respond to other questions. 9 BY ATTORNEY DAVIDSON: 10 Q. My question is: Did you mention in 03:03 11 your report that Taher refers to the 12 certainty of evidence as very low? 13 ATTORNEY O'DELL: That's a 14 different question you asked before -- 15 ATTORNEY DAVIDSON: No, it's not a 03:03 16 different question. It's exactly the 17 question I asked. 18 ATTORNEY O'DELL: Please don't 19 interrupt me, Jessica. 20 THE WITNESS: I'd have to look at 03:03 21 what my exact wording was in the 22 report. 23 BY ATTORNEY DAVIDSON: 24 Q. You're welcome to look at your 25 report. It's at the bottom of page 14. 03:03</p>

<p style="text-align: right;">Page 246</p> <p>1 A. I see that now.</p> <p>2 Q. I just want to know if you</p> <p>3 mentioned the very low certainty of the</p> <p>4 evidence referenced in Table 4 anywhere in</p> <p>5 your report. 03:03</p> <p>6 A. I did not specifically reference</p> <p>7 Table 4 anywhere in the report.</p> <p>8 Q. Nor did you, anywhere in your</p> <p>9 report, reference the authors' concerns</p> <p>10 about the very low certainty of the evidence 03:04</p> <p>11 in that paper; correct?</p> <p>12 ATTORNEY O'DELL: Object to the</p> <p>13 form.</p> <p>14 BY ATTORNEY DAVIDSON:</p> <p>15 Q. Correct, Doctor? 03:04</p> <p>16 A. So your statement is correct, but</p> <p>17 your reasoning for the statement is</p> <p>18 incorrect.</p> <p>19 Q. There is no reasoning in my</p> <p>20 statement. 03:04</p> <p>21 Let's move on.</p> <p>22 ATTORNEY DAVIDSON: You can take</p> <p>23 this down, Noah. If we could -- let's</p> <p>24 go off the record. I need five</p> <p>25 minutes. 03:05</p>	<p style="text-align: right;">Page 248</p> <p>1 other than trying to be more comprehensive</p> <p>2 with all the materials as it relates to some</p> <p>3 of the epidemiology.</p> <p>4 Q. When did you read this?</p> <p>5 A. Reviewed it as part of the overall 03:21</p> <p>6 preparation for today.</p> <p>7 Q. So, like, you read it for the first</p> <p>8 time in the last few weeks?</p> <p>9 A. I'd have to give that some thought.</p> <p>10 It was added to the list more recently in 03:21</p> <p>11 terms of cleaning up the list, but I can't</p> <p>12 say for sure if it was -- a lot of things</p> <p>13 kind of ran together as a -- or started to</p> <p>14 run together as I was preparing for today.</p> <p>15 Q. So you're not sure when you read 03:21</p> <p>16 this?</p> <p>17 A. No, I'm not sure.</p> <p>18 Q. Okay. Let's move on.</p> <p>19 ATTORNEY DAVIDSON: Let's mark as</p> <p>20 Exhibit 11 Wentzensen and O'Brien. 03:21</p> <p>21 2021, I think.</p> <p>22 (Exhibit Number 11 was marked for</p> <p>23 identification.)</p> <p>24 ///</p> <p>25 ///</p>
<p style="text-align: right;">Page 247</p> <p>1 (Recess taken from 3:05 p.m. to</p> <p>2 3:19 p.m.)</p> <p>3 BY ATTORNEY DAVIDSON:</p> <p>4 Q. Dr. Levy, earlier today I was</p> <p>5 asking you why O'Brien 2020 was added to 03:19</p> <p>6 your reliance list only this Saturday, and</p> <p>7 you said you couldn't answer without seeing</p> <p>8 it. So we put in the chat O'Brien 2020.</p> <p>9 And I'm wondering if that refreshes</p> <p>10 your recollection as to why it's a recent 03:19</p> <p>11 addition to your reliance list.</p> <p>12 (Exhibit Number 10 was marked for</p> <p>13 identification.)</p> <p>14 THE WITNESS: Yeah, you can hear</p> <p>15 me; right, Jessica? 03:20</p> <p>16 BY ATTORNEY DAVIDSON:</p> <p>17 Q. Sure can.</p> <p>18 A. Okay. Just want to make sure.</p> <p>19 No specific reasoning. I think</p> <p>20 the -- I believe this was added after the 03:20</p> <p>21 fact, but it is referenced and included in</p> <p>22 one of the -- I think it is included in</p> <p>23 the -- one of the meta-analysis or cohort</p> <p>24 references that is referenced in my report.</p> <p>25 So I think it was just -- no specific reason 03:20</p>	<p style="text-align: right;">Page 249</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Talc, body powder, and ovarian</p> <p>3 cancer: A summary of the epidemiologic</p> <p>4 evidence.</p> <p>5 This paper is cited in your report 03:22</p> <p>6 on page --</p> <p>7 A. 16.</p> <p>8 Q. -- 16, top of page 16.</p> <p>9 Do you see that, Dr. Levy?</p> <p>10 A. I do. 03:22</p> <p>11 Q. So you cite this paper after a</p> <p>12 sentence that says: Multiple</p> <p>13 epidemiological studies examine aggregate</p> <p>14 data from large cohorts of patients have</p> <p>15 consistently found an increased risk of talc 03:22</p> <p>16 use in ovarian cancer.</p> <p>17 Do you see that?</p> <p>18 A. I do.</p> <p>19 Q. First of all, is this an</p> <p>20 epidemiological study? 03:22</p> <p>21 A. It's a summary of epidemiology</p> <p>22 studies.</p> <p>23 Q. This would be called a review</p> <p>24 paper; right?</p> <p>25 A. Sure, yeah. 03:23</p>

<p style="text-align: right;">Page 250</p> <p>1 Q. So have you read this paper in 2 full?</p> <p>3 A. I have.</p> <p>4 Q. What's the ultimate conclusion of 5 the authors? 03:23</p> <p>6 ATTORNEY O'DELL: Object to the 7 form. Excuse me. Sorry.</p> <p>8 THE WITNESS: I think -- so this 9 was -- I'd say the authors have a few 10 different conclusions. One is they 03:24 11 indicated, as was referenced in the 12 paper, a positive association between 13 general powder use and ovarian cancer. 14 BY ATTORNEY DAVIDSON:</p> <p>15 Q. Can you point me to where they say 03:24 16 that?</p> <p>17 A. Sure. So it's in the abstract 18 about halfway down, starting with: Taken 19 together, the epidemiological data from case 20 control and cohort studies suggest there may 03:24 21 be a small positive association. 22 Q. I'm sorry. You left out the word 23 "may." 24 There may be a small positive 25 association; right? 03:24</p>	<p style="text-align: right;">Page 252</p> <p>1 is difficult to conclude that the observed 2 associations are causal?</p> <p>3 A. I don't recall that specific 4 sentence. I wouldn't be surprised that it 5 was phrased that way. 03:25</p> <p>6 Q. The authors also state that the 7 experimental and animal carcinogenicity data 8 for talc are limited and inconclusive, and 9 there are currently no good animal or 10 experimental models of ovarian 03:26 11 carcinogenesis that can be used to more 12 directly test biological effects of talc. 13 Do you agree with them on that? 14 ATTORNEY O'DELL: I'm sorry, 15 Jessica. Would you tell us where 03:26 16 you're reading, please? 17 ATTORNEY DAVIDSON: Page 8. 18 ATTORNEY O'DELL: Which column? 19 ATTORNEY DAVIDSON: Noah, do you 20 want to put it up. Right at the 03:26 21 bottom on the right. 22 BY ATTORNEY DAVIDSON: 23 Q. Do you agree with the authors that 24 the experimental and animal carcinogenicity 25 data for talc are limited and inconclusive, 03:26</p>
<p style="text-align: right;">Page 251</p> <p>1 A. Correct. That's what it states. 2 Q. Okay. So they don't find an 3 association. They say there may be an 4 association. I just want to make sure.</p> <p>5 ATTORNEY O'DELL: Object to the 03:24 6 form. 7 BY ATTORNEY DAVIDSON: 8 Q. Continue. 9 ATTORNEY O'DELL: What's your 10 question, please? 03:25 11 THE WITNESS: I think their 12 conclusions were also noting some of 13 the limitations of study design, 14 particularly under cohort or other 15 studies. I think this is something 03:25 16 that was observed in a few of the 17 literature pieces. 18 BY ATTORNEY DAVIDSON: 19 Q. Do you recall the authors stating 20 it is difficult to conclude that the 03:25 21 observed associations are causal? 22 A. I believe the authors stated that 23 more research was needed to confirm if 24 the -- if this was causal. 25 Q. Do you recall the authors saying it 03:25</p>	<p style="text-align: right;">Page 253</p> <p>1 and there are currently no good animal or 2 experimental models of ovarian 3 carcinogenesis that could be used to more 4 directly test biological effects of talc?</p> <p>5 A. I'm sorry. Where on the -- 03:27 6 Q. Can you just -- 7 A. Is it in that second column? 8 ATTORNEY DAVIDSON: Can you just 9 highlight it, Noah. 10 THE WITNESS: I'm sorry. 03:27 11 ATTORNEY EPSTEIN: Let me know if 12 you want me to zoom in more. 13 ATTORNEY DAVIDSON: Yeah, let's 14 just zoom in on that. 15 THE WITNESS: So I am now aware 03:27 16 that they make this statement. 17 BY ATTORNEY DAVIDSON: 18 Q. I'm asking if you agree or disagree 19 with it. 20 A. So I would say I disagree with the 03:27 21 qualification in the sense that they 22 reference a single IARC working group from 23 2010 in support of that statement. I would 24 have assumed that such a conclusive and 25 broad-ranging statement would have been 03:28</p>

<p style="text-align: right;">Page 254</p> <p>1 supported by more literature references, 2 particularly in light of everything we've 3 been discussing today, that there are 4 numerous publications or numerous things 5 that could -- I'm not saying the authors 03:28 6 have to cite them. It's up to the 7 discretion of the author as to what 8 conclusions they draw, as we were just 9 discussing with the last paper; however, I 10 think a broad-ranging statement like that 03:28 11 with a single reference is a little bit 12 surprising, especially given the somewhat 13 conservative nature of the way the authors 14 have worded some of their other conclusions. 15 Based on my review of the 03:28 16 literature, I would disagree with that 17 statement. 18 Q. Do you know what Drs. Wentzensen 19 and O'Brien do with their lives? 20 A. I don't know specifically. I 03:28 21 would -- looking at their affiliations. 22 Q. Let's go to page 1. 23 A. Looking at their affiliations, 24 they're epidemiologists. 25 Q. One of them is at the American 03:29</p>	<p style="text-align: right;">Page 256</p> <p>1 ATTORNEY O'DELL: Object to the 2 form. Assumes facts not in evidence. 3 THE WITNESS: So these are 4 intramural scientists at the National 5 Institute of Health and NIHS, as you 03:30 6 stated. What their -- I don't have 7 any information on what their career 8 path or trajectory may have been. 9 BY ATTORNEY DAVIDSON: 10 Q. Do you believe that you are more 03:30 11 knowledgeable about ovarian cancer, 12 epidemiology, and biology than Drs. 13 Wentzensen and O'Brien? 14 A. I don't have a basis on which to 15 make that comparison, but I am not an 03:30 16 epidemiologist. 17 Q. Okay. Let's look at page 16 of 18 your report. 19 A. Okay. 20 Q. You say: Two independent research 03:31 21 studies examined cohorts of women with 22 self-reported use of talc, store-bought 23 douches, or a combination of both. 24 (Gabriel, Vitonis et al. 2019, O'Brien, 25 D'Aloisio et al. 2019) The two studies 03:31</p>
<p style="text-align: right;">Page 255</p> <p>1 Cancer Institute and the other is at the 2 NIH, National Institute of Environmental 3 Health Sciences; correct? 4 A. NIHS, yeah. 5 Q. And unlike many of the other 03:29 6 experts whose papers you've cited today and 7 throughout your report, they're not experts 8 for plaintiffs hired in this litigation; 9 correct? 10 ATTORNEY O'DELL: Object to the 03:29 11 form. 12 THE WITNESS: Again, I'm not aware 13 of their relationship to plaintiffs or 14 defense. I've not -- certainly they 15 have not been stated to be associated 03:29 16 with this litigation in any way. 17 BY ATTORNEY DAVIDSON: 18 Q. In fact, these -- 19 ATTORNEY O'DELL: I'm sorry. 20 Excuse me. Have you finished? 03:29 21 THE WITNESS: Yeah, I finished. 22 ATTORNEY O'DELL: Thank you. 23 BY ATTORNEY DAVIDSON: 24 Q. These are scientists who devoted 25 their careers to cancer research; right? 03:30</p>	<p style="text-align: right;">Page 257</p> <p>1 found a positive association between talc 2 use or without douching and ovarian cancer. 3 Do you see that? 4 A. I do. 5 Q. Yes? 03:32 6 A. Yes, I do. 7 Q. How did you identify the O'Brien 8 2019 paper? 9 A. I'm not sure specifically. 10 Q. Can we pull it up, please. 03:32 11 A. I don't recall if it was through 12 one of the review articles or meta-analysis 13 or through a search. I'm not sure. 14 ATTORNEY DAVIDSON: What exhibit 15 number would that be? 03:32 16 ATTORNEY EPSTEIN: Exhibit 12. 17 ATTORNEY DAVIDSON: Let's mark 18 O'Brien 2019 Exhibit 12. 19 (Exhibit Number 12 was marked for 20 identification.) 03:32 21 ATTORNEY DAVIDSON: Do you want to 22 put it up on the screen as well? 23 BY ATTORNEY DAVIDSON: 24 Q. Dr. Levy, O'Brien 2019 actually had 25 nothing to do with ovarian cancer; right? 03:33</p>

<p style="text-align: right;">Page 258</p> <p>1 That's just a mistake in your report?</p> <p>2 A. So this was uterine, correct.</p> <p>3 Yeah, uterine cancer.</p> <p>4 Q. So these two sentences are</p> <p>5 erroneous? 03:33</p> <p>6 ATTORNEY O'DELL: Object to the</p> <p>7 form.</p> <p>8 BY ATTORNEY DAVIDSON:</p> <p>9 Q. Actually three sentences.</p> <p>10 A. So the first sentence is not 03:33</p> <p>11 incorrect. It's beginning with two</p> <p>12 independent research studies.</p> <p>13 Q. Why did you include a study about</p> <p>14 uterine cancer in your report?</p> <p>15 A. I think just through the overall 03:34</p> <p>16 review of talc and its association with</p> <p>17 cancer.</p> <p>18 Q. Did you intend to include this</p> <p>19 paper in your report?</p> <p>20 A. I think I intended to include this 03:34</p> <p>21 paper, but as I was summarizing in the</p> <p>22 report, I just misstated or should have made</p> <p>23 clear ovarian or uterine cancer. Should</p> <p>24 have been more clear in the description of</p> <p>25 the studies as it relates to their findings. 03:34</p>	<p style="text-align: right;">Page 260</p> <p>1 cancer; correct?</p> <p>2 A. Correct. I think this study found</p> <p>3 a positive association as was stated in the</p> <p>4 report.</p> <p>5 Q. The report actually talks about 03:36</p> <p>6 ovarian cancer, not uterine cancer. So not</p> <p>7 as was stated in the report. Are you aware</p> <p>8 of any paper that has found a positive</p> <p>9 statistically significant association</p> <p>10 between talc use and uterine cancer? 03:36</p> <p>11 A. Not outside of this paper, no. Not</p> <p>12 that I'm aware.</p> <p>13 Q. Including this paper, are you aware</p> <p>14 of any paper that has found a statistically</p> <p>15 significant positive association between 03:37</p> <p>16 talc use and uterine cancer?</p> <p>17 A. Again, not that I've found, but I</p> <p>18 wasn't searching for -- specifically for</p> <p>19 uterine cancer studies.</p> <p>20 Q. If you weren't searching for 03:37</p> <p>21 uterine cancer studies, why did you cite</p> <p>22 this study?</p> <p>23 ATTORNEY O'DELL: Objection.</p> <p>24 Asked and answered.</p> <p>25 THE WITNESS: This study came up 03:37</p>
<p style="text-align: right;">Page 259</p> <p>1 Q. Did this paper find a statistically</p> <p>2 significant association between talc use and</p> <p>3 uterine cancer?</p> <p>4 A. Yes, it looks like an adjusted</p> <p>5 hazard ratio of 1.2. 03:34</p> <p>6 Q. Was it statistically significant?</p> <p>7 A. It looks like when you include the</p> <p>8 dose response curve.</p> <p>9 Q. Doctor, what's the 95 percent</p> <p>10 confidence interval? 03:35</p> <p>11 A. It's a -- the confidence in the</p> <p>12 data to being -- that you have confidence</p> <p>13 that you're 95 chances out of a hundred that</p> <p>14 you're correct.</p> <p>15 Q. What is the 95 percent confidence 03:35</p> <p>16 interval in this paper for the 1.2</p> <p>17 association?</p> <p>18 A. 0.94.</p> <p>19 Q. So it's not statistically</p> <p>20 significant, the 1.2; correct? 03:36</p> <p>21 A. At the 95th percentile confidence</p> <p>22 interval for this study.</p> <p>23 Q. So this paper did not find a</p> <p>24 statistically significant association</p> <p>25 between talc use and the risk of uterine 03:36</p>	<p style="text-align: right;">Page 261</p> <p>1 as part of the review, but I didn't</p> <p>2 extend that search to include</p> <p>3 additional uterine cancer studies as</p> <p>4 well.</p> <p>5 BY ATTORNEY DAVIDSON: 03:37</p> <p>6 Q. Do you consider a 1.2 association</p> <p>7 with a confidence level of .94 to 1.6 to be</p> <p>8 a positive association?</p> <p>9 A. Yes, I would say that's a positive</p> <p>10 association. 03:37</p> <p>11 Q. I see. I asked you earlier if you</p> <p>12 had read the Chang study which also</p> <p>13 addresses douching and ovarian cancer in</p> <p>14 contrast to the O'Brien study which does not</p> <p>15 actually address ovarian cancer. And you 03:38</p> <p>16 said you couldn't tell me if you had seen it</p> <p>17 or not, but it was not on your reliance</p> <p>18 list; correct?</p> <p>19 A. I believe that's correct.</p> <p>20 Q. Let's put up the Chang study. 13. 03:38</p> <p>21 (Exhibit Number 13 was marked for</p> <p>22 identification.)</p> <p>23 ATTORNEY EPSTEIN: Exhibit 13,</p> <p>24 yes.</p> <p>25 ///</p>

<p style="text-align: right;">Page 262</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Does seeing this paper refresh your</p> <p>3 recollection that you've never seen it?</p> <p>4 A. It just popped up for me. Okay. I</p> <p>5 have it now. 03:39</p> <p>6 No, I don't believe I've seen this</p> <p>7 study in 2024. I know I've seen another</p> <p>8 work -- other work from the sister study but</p> <p>9 not this one. Perhaps not this one.</p> <p>10 Q. Let's go -- let's look at the 03:39</p> <p>11 supplemental table.</p> <p>12 ATTORNEY O'DELL: If you need a</p> <p>13 moment to review it, Dr. Levy, please</p> <p>14 take your time.</p> <p>15 ATTORNEY DAVIDSON: Noah, can you 03:39</p> <p>16 put supplemental table S4 up on the</p> <p>17 screen.</p> <p>18 ATTORNEY EPSTEIN: Do you want me</p> <p>19 to put it in the chat as well?</p> <p>20 ATTORNEY DAVIDSON: Yeah, I 03:40</p> <p>21 thought you had it attached all as one</p> <p>22 doc. If not, let's mark the</p> <p>23 supplemental tables as Exhibit 14.</p> <p>24 (Exhibit Number 14 was marked for</p> <p>25 identification.) 03:41</p>	<p style="text-align: right;">Page 264</p> <p>1 because what I'm seeing on my screen</p> <p>2 or what downloaded was only table S4,</p> <p>3 and I believe there are multiple</p> <p>4 tables -- supplemental tables. I just</p> <p>5 want the record to be clear. 03:42</p> <p>6 ATTORNEY DAVIDSON: You're welcome</p> <p>7 to ask, Dr. Levy, about any</p> <p>8 supplemental tables in this paper.</p> <p>9 BY ATTORNEY DAVIDSON:</p> <p>10 Q. Let's look at hygiene. 03:42</p> <p>11 ATTORNEY O'DELL: So the record</p> <p>12 will be clear, it's not the</p> <p>13 supplemental tables. It's just that</p> <p>14 particular one.</p> <p>15 BY ATTORNEY DAVIDSON: 03:42</p> <p>16 Q. So --</p> <p>17 A. Yeah, specifically rows 56 through</p> <p>18 61.</p> <p>19 Q. I want to look at ovarian cancer</p> <p>20 which is I believe the second column, like 03:42</p> <p>21 the second -- yeah, this is the ovarian</p> <p>22 cancer numbers.</p> <p>23 ATTORNEY DAVIDSON: Noah, it's</p> <p>24 really hard because how do we show the</p> <p>25 headings? I have it on my -- my 03:43</p>
<p style="text-align: right;">Page 263</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. All right, Doctor, let's look at --</p> <p>3 ATTORNEY DAVIDSON: Noah, the way</p> <p>4 you've got this it's kind of hard to</p> <p>5 read. I assume you have it in the 03:41</p> <p>6 chat so maybe you can -- oh, my God.</p> <p>7 I wanted to look at the hygiene</p> <p>8 products.</p> <p>9 ATTORNEY O'DELL: What page,</p> <p>10 please? 03:41</p> <p>11 THE WITNESS: This is the --</p> <p>12 BY ATTORNEY DAVIDSON:</p> <p>13 Q. Table S4 shows the association</p> <p>14 between one frequency category increased in</p> <p>15 use of single personal care product and 03:41</p> <p>16 breast, ovarian, and uterine cancer for</p> <p>17 proportioned hazard models.</p> <p>18 Do you see that?</p> <p>19 ATTORNEY O'DELL: So this is just</p> <p>20 one of the tables? This is just S4? 03:42</p> <p>21 This is not all the tables,</p> <p>22 supplemental tables to Chang; correct?</p> <p>23 ATTORNEY DAVIDSON: Are you</p> <p>24 testifying, Leigh?</p> <p>25 ATTORNEY O'DELL: No I'm asking 03:42</p>	<p style="text-align: right;">Page 265</p> <p>1 printout is so much easier to read.</p> <p>2 BY ATTORNEY DAVIDSON:</p> <p>3 Q. I wanted to ask you what is the</p> <p>4 age-adjusted hazard ratio for bath gel and</p> <p>5 ovarian cancer? 03:43</p> <p>6 A. If you're referring to row 46 for</p> <p>7 ovarian cancer, the age-adjusted hazard</p> <p>8 ratio is 1.06.</p> <p>9 Q. And is that statistically</p> <p>10 significant? 03:43</p> <p>11 A. The 95th confidence interval is .98</p> <p>12 to 1.14.</p> <p>13 Q. So that means no, not statistically</p> <p>14 significant; right?</p> <p>15 ATTORNEY O'DELL: Object to the 03:44</p> <p>16 form.</p> <p>17 THE WITNESS: Correct.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. And for deodorant, what's the</p> <p>20 association? 03:44</p> <p>21 A. .96.</p> <p>22 Q. For douching, what's the</p> <p>23 association?</p> <p>24 A. 1.37.</p> <p>25 Q. Is that statistically significant? 03:44</p>

<p style="text-align: right;">Page 266</p> <p>1 A. So the 95th percent confidence 2 interval is from 1.12 to 1.68. 3 Q. And that is statistically 4 significant; correct? 5 A. So it's statistically significant 03:44 6 meaning it's over a hazard ratio of 1 at the 7 95th confidence interval, but my 8 interpretation would still be this is a 9 positive association. 10 Q. Doctor, you're aware that in the 03:44 11 field of epidemiology, statistical 12 significance means that the confidence 13 interval doesn't cross 1; right? 14 A. Uh-huh. 15 Q. Okay. You just keep hesitating 03:45 16 when I ask you if something was 17 statistically significant; so I wasn't sure 18 if you're aware of that. 19 ATTORNEY O'DELL: Objection. 20 BY ATTORNEY DAVIDSON: 03:45 21 Q. Mouthwash does not show positive 22 association; right? 23 A. Mouthwash shows 0.98 with a 24 confidence interval of .91 to 1.07. 25 Q. That is not a positive association; 03:45</p>	<p style="text-align: right;">Page 268</p> <p>1 THE WITNESS: Yes, that's what 2 this study is reporting. 3 BY ATTORNEY DAVIDSON: 4 Q. So the only exposure with a 5 statistically significant increased risk is 03:46 6 douching at 1.37 with a 1.12 to 1.68 7 confidence interval; correct? 8 ATTORNEY O'DELL: Objection to the 9 form. 10 THE WITNESS: In this table that 03:46 11 is what the summary results are 12 indicating. 13 BY ATTORNEY DAVIDSON: 14 Q. But when you talk about cohorts of 15 women with self-reported use of talc and 03:46 16 douching, you don't mention this paper; 17 correct? 18 A. Correct. As I said, I'd have to -- 19 I think I did reference one of the sister 20 study papers. I'd have to check. 03:47 21 Q. Can genetically changing form cause 22 ovarian cancer? 23 A. Genetic mutations -- the 24 preponderance of the literature indicates 25 that genetic mutations can provide an 03:47</p>
<p style="text-align: right;">Page 267</p> <p>1 correct? 2 A. Correct. 3 Q. Shaving cream shows a 1.03 4 non-statistically significant association; 5 correct? 03:45 6 A. That's correct. 7 Q. Talc under the arm, 1.07 8 non-statistically significant association; 9 correct? 10 ATTORNEY O'DELL: Object to the 03:45 11 form. 12 THE WITNESS: Based on the -- in 13 the 95th confidence interval, that's 14 correct. 15 BY ATTORNEY DAVIDSON: 03:45 16 Q. Same for talc vaginal; correct? 17 ATTORNEY O'DELL: Object to the 18 form. 19 THE WITNESS: So those numbers are 20 the same. 03:46 21 BY ATTORNEY DAVIDSON: 22 Q. And then talc other is 1.01 23 non-statistically significant; correct? 24 ATTORNEY O'DELL: Object to the 25 form. 03:46</p>	<p style="text-align: right;">Page 269</p> <p>1 increased risk for ovarian cancer. I'm not 2 aware of any specific mutations that have 3 been proven to be causative for ovarian 4 cancer. 5 Q. Would you agree that the science 03:47 6 and technology -- 7 ATTORNEY DAVIDSON: By the way, 8 Noah, you can take that down. 9 BY ATTORNEY DAVIDSON: 10 Q. You would agree that the science 03:48 11 and technology that are being used to detect 12 cancer-causing genetic mutations is 13 evolving -- are evolving? 14 A. Yes, I would agree. 15 Q. So there are likely cancer-causing 03:48 16 genetic mutations that we don't know about 17 yet? 18 A. You know, again, the use of the 19 word "causing," I would say associated 20 variants to cancer. There are certainly 03:48 21 relevant genetic changes to cancer that we 22 don't know yet, but there's an important 23 clarification around that. If we use BRCA1 24 and 2 as two examples, I think it's unlikely 25 that we will find -- extremely unlikely that 03:48</p>

<p style="text-align: right;">Page 270</p> <p>1 we will find single gene, highly penetrant 2 mutations that say -- identified as 3 causative, meaning they, in and of 4 themselves, cause cancer that have yet to be 5 discovered yet. We've done enough genomes. 03:49 6 We've done enough exomes. We've done enough 7 cancer profiling that we likely have found 8 those. It still remains an evolving field 9 to understand the complex relationship 10 between any given mutation, the background 03:49 11 genetics of that individual, and then the 12 resulting initiation and progression of 13 disease. Especially in cancer but certainly 14 exists in many other common disorders that 15 we know have a genetic -- that genetics 03:49 16 plays a role. 17 Q. Do ovarian cancer researchers agree 18 with you on that? 19 A. I would think so. 20 Q. Have you seen any papers by ovarian 03:49 21 cancer researchers saying what you just 22 said? 23 ATTORNEY O'DELL: Object to the 24 form. Vague. 25 THE WITNESS: Stating that -- have 03:49</p>	<p style="text-align: right;">Page 272</p> <p>1 somebody? No, I don't know the full range 2 of what -- certainly the full range of what 3 would predispose someone to ovarian cancer 4 or, on the contrary, the corollary to that, 5 protect them from ovarian cancer. That is 03:51 6 not completely understood. 7 Q. Are you aware that your employer 8 has Tweeted that hereditary breast and 9 ovarian cancer testing remains inadequate? 10 A. Correct. But importantly the 03:51 11 context. 12 Q. Do you agree with that statement? 13 A. I do. 14 Q. Do you agree that hereditary breast 15 and ovarian cancer testing has been plagued 03:51 16 by high test costs and challenges in data 17 quality? 18 A. With important -- from a testimony 19 perspective I agree with that, but there's a 20 number of important footnotes to those 03:52 21 statements. It shouldn't be taken in 22 isolation. For example, access, 23 socioeconomic status, et cetera. That 24 statement is a -- not an incorrect 25 statement, but it's also not one that is 03:52</p>
<p style="text-align: right;">Page 271</p> <p>1 I seen any -- well, I don't know of 2 any papers making those similar 3 summary statements. That would be 4 unusual. 5 BY ATTORNEY DAVIDSON: 03:50 6 Q. Is there actually a whole field of 7 ovarian cancer researchers looking for new 8 genetic mutations to understand hereditary 9 breast and ovarian cancer syndrome? 10 A. Certainly. 03:50 11 Q. Has our knowledge of mutations and 12 what mutations are associated with ovarian 13 cancer increased since your deposition in 14 2019? 15 ATTORNEY O'DELL: Object to the 03:50 16 form. Vague. 17 THE WITNESS: I would be confident 18 to say yes, our -- that it has changed 19 over the last five years. 20 BY ATTORNEY DAVIDSON: 03:50 21 Q. Do you, sitting here today, have a 22 full range of genes that predispose someone 23 to developing ovarian cancer? 24 A. I'm sorry. Is your question do I 25 know the full range of genes predisposing 03:51</p>	<p style="text-align: right;">Page 273</p> <p>1 fair to the entire testing field, meaning 2 that there are quality tests on the market, 3 and there are also tests that have 4 questionable quality. 5 Q. Do you agree that challenges in 03:52 6 next gen sequencing data quality affect 7 testing for hereditary breast and ovarian 8 cancer syndrome or however you want to . . . 9 ATTORNEY O'DELL: Object to the 10 form. 03:52 11 THE WITNESS: I don't think next 12 generation sequencing technology is 13 the root cause of that; so I would say 14 no. 15 BY ATTORNEY DAVIDSON: 03:52 16 Q. Is next generation sequencing data 17 still being improved and worked on? 18 A. The totality of the testing methods 19 are being worked on. 20 Q. Have you reviewed the medical 03:53 21 records of all six plaintiffs in this case? 22 A. I've reviewed the materials that 23 were provided on the six plaintiffs in this 24 case. 25 Q. What materials have you reviewed 03:53</p>

<p style="text-align: right;">Page 274</p> <p>1 with respect to each of them?</p> <p>2 A. In most it's been their genetic</p> <p>3 testing results, but I think if there's -- I</p> <p>4 would have just the materials that were</p> <p>5 provided on each of those six. In some 03:53</p> <p>6 cases there were multiple testing results,</p> <p>7 and in other cases there were single testing</p> <p>8 results. It depends on which patient you're</p> <p>9 referring to.</p> <p>10 Q. Have you ever done -- 03:54</p> <p>11 A. But --</p> <p>12 ATTORNEY O'DELL: I'm sorry.</p> <p>13 He's --</p> <p>14 THE WITNESS: I just wanted to</p> <p>15 clarify in no cases was I provided a 03:54</p> <p>16 complete medical record on any of the</p> <p>17 individuals.</p> <p>18 ATTORNEY DAVIDSON: I want to make</p> <p>19 clearly that Dr. Levy has a habit of</p> <p>20 stopping and then thinking of 03:54</p> <p>21 something else he wants to say after I</p> <p>22 start asking a question.</p> <p>23 BY ATTORNEY DAVIDSON:</p> <p>24 Q. Have you ever done genetic</p> <p>25 counseling in your life? 03:54</p>	<p style="text-align: right;">Page 276</p> <p>1 ATTORNEY O'DELL: Excuse me. He</p> <p>2 wasn't finished. Were you finished?</p> <p>3 ATTORNEY DAVIDSON: I'm sorry. I</p> <p>4 just assume that a period was the end.</p> <p>5 BY ATTORNEY DAVIDSON: 03:55</p> <p>6 Q. Do you recall whether Dr. Godleski</p> <p>7 found talc particles in all of the</p> <p>8 plaintiff's tissues?</p> <p>9 A. I recall I reviewed a plaintiff</p> <p>10 that he had also performed that analysis on. 03:56</p> <p>11 I'm not aware if he had the opportunity to</p> <p>12 analyze all six plaintiffs. I don't know if</p> <p>13 pathology material was actually available</p> <p>14 for all six or not. I would defer --</p> <p>15 certainly defer to Dr. Godleski on that. 03:56</p> <p>16 Q. Are you aware of whether</p> <p>17 Dr. Godleski looked at any of the</p> <p>18 plaintiffs' ovary tissues and actually found</p> <p>19 no talc particles?</p> <p>20 ATTORNEY O'DELL: Objection to 03:56</p> <p>21 form.</p> <p>22 THE WITNESS: I would have to</p> <p>23 review Dr. Godleski's report. I</p> <p>24 believe just from memory that he found</p> <p>25 that there were either sections or 03:56</p>
<p style="text-align: right;">Page 275</p> <p>1 A. I'm not a genetic counselor.</p> <p>2 Q. Genetic counseling typically</p> <p>3 involves interviewing patients; right?</p> <p>4 A. Genetic counselors generally act as</p> <p>5 the individual that works directly with the 03:54</p> <p>6 patient, so yes. During my time at</p> <p>7 HudsonAlpha, I employed genetic counselors</p> <p>8 that were under my supervision.</p> <p>9 Q. Did you interview any of the</p> <p>10 plaintiffs in this case? 03:54</p> <p>11 A. I did not.</p> <p>12 Q. Do you know how long each plaintiff</p> <p>13 used Johnson's Baby Powder?</p> <p>14 A. I don't believe those details were</p> <p>15 in the materials. 03:55</p> <p>16 Q. Okay. Do you know whether they</p> <p>17 smoked?</p> <p>18 A. I would have to review them.</p> <p>19 Again, I don't recall if smoking status was</p> <p>20 indicated in any of the test results. 03:55</p> <p>21 Q. Do you recall whether any of them</p> <p>22 had a tubal ligation?</p> <p>23 A. I don't recall if that was the</p> <p>24 case. But again --</p> <p>25 Q. Do you recall whether -- 03:55</p>	<p style="text-align: right;">Page 277</p> <p>1 blocks where talc particles were not</p> <p>2 found. As reported in his report, it</p> <p>3 was six out of seven or four out of</p> <p>4 seven or something in that range.</p> <p>5 But, again, I would have to review his 03:57</p> <p>6 report to give you an accurate</p> <p>7 statement.</p> <p>8 BY ATTORNEY DAVIDSON:</p> <p>9 Q. What do you mean by "four out of</p> <p>10 seven"? 03:57</p> <p>11 A. Meaning his review of multiple</p> <p>12 slides or multiple sections, how many he</p> <p>13 found talc particles in.</p> <p>14 Q. Were there any plaintiffs in which</p> <p>15 he did not find talc particles in their 03:57</p> <p>16 ovary tissues?</p> <p>17 ATTORNEY O'DELL: Objection.</p> <p>18 Asked and answered.</p> <p>19 THE WITNESS: I'd have to look at</p> <p>20 his report again to remind myself of 03:57</p> <p>21 that. I don't recall if it was within</p> <p>22 the same patient or in different</p> <p>23 patients. Again, I would have to look</p> <p>24 at his report.</p> <p>25 ///</p>

<p style="text-align: right;">Page 278</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Did the six plaintiffs all have the</p> <p>3 same genetic testing or they had different</p> <p>4 genetic tests?</p> <p>5 A. The six plaintiffs did not have all 03:57</p> <p>6 the same genetic testing.</p> <p>7 Q. You would agree that genetic</p> <p>8 testing available on the market varies,</p> <p>9 especially -- has varied over time and that</p> <p>10 these plaintiffs had their genetic testing 03:58</p> <p>11 at different periods of time; correct?</p> <p>12 A. I would agree.</p> <p>13 Q. Do you agree that Ms. Bondurant has</p> <p>14 a strong family history of cancer?</p> <p>15 Let's mark her amended PFS, Noah, 03:58</p> <p>16 as Exhibit?</p> <p>17 ATTORNEY EPSTEIN: Exhibit 15.</p> <p>18 (Exhibit Number 15 was marked for</p> <p>19 identification.)</p> <p>20 BY ATTORNEY DAVIDSON: 03:59</p> <p>21 Q. Would you consider this to be a</p> <p>22 strong family history of cancer?</p> <p>23 ATTORNEY O'DELL: Object to the</p> <p>24 form.</p> <p>25 THE WITNESS: Just one second. 03:59</p>	<p style="text-align: right;">Page 280</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. How many first and second degree</p> <p>3 relatives of Ms. Bondurant have cancer</p> <p>4 diagnosis?</p> <p>5 A. Based on what's on the screen, six. 04:01</p> <p>6 Q. Is that above average?</p> <p>7 ATTORNEY O'DELL: Object to the</p> <p>8 form.</p> <p>9 THE WITNESS: I'm not -- I'm</p> <p>10 actually -- I would say -- I would 04:01</p> <p>11 have to confirm the relative -- couple</p> <p>12 of things. One would be the smoking</p> <p>13 history and in other history as well</p> <p>14 as age for some of these, but I can't</p> <p>15 say it's above or below average. 04:01</p> <p>16 BY ATTORNEY DAVIDSON:</p> <p>17 Q. Is that something a genetic</p> <p>18 counselor would know better?</p> <p>19 ATTORNEY O'DELL: Object to the</p> <p>20 form. 04:01</p> <p>21 THE WITNESS: I think a -- well, a</p> <p>22 genetic counselor may offer their</p> <p>23 perspectives on the same, but again,</p> <p>24 these are family incidences with no</p> <p>25 connection to genetic testing results 04:02</p>
<p style="text-align: right;">Page 279</p> <p>1 It's still downloading on my end.</p> <p>2 BY ATTORNEY DAVIDSON:</p> <p>3 Q. Isn't it on the screen?</p> <p>4 A. Oh, sorry. I was looking at the</p> <p>5 chat. 03:59</p> <p>6 ATTORNEY O'DELL: If you need to</p> <p>7 pull it down from the chat, Dr. Levy,</p> <p>8 feel free to do that.</p> <p>9 ATTORNEY DAVIDSON: It's right up</p> <p>10 on the screen. 03:59</p> <p>11 ATTORNEY O'DELL: It is, but it's</p> <p>12 available to him in the chat if he'd</p> <p>13 like to review the entire document.</p> <p>14 THE WITNESS: I wouldn't -- I'd</p> <p>15 say this is certainly a family history 04:00</p> <p>16 of cancer. Given the timing and</p> <p>17 types, I'd say not unusual for an</p> <p>18 extended family.</p> <p>19 BY ATTORNEY DAVIDSON:</p> <p>20 Q. So you don't consider this to be a 04:00</p> <p>21 strong family history of cancer?</p> <p>22 ATTORNEY O'DELL: Objection to</p> <p>23 form. Asked and answered.</p> <p>24 THE WITNESS: I'd say I agree</p> <p>25 there is a family history of cancer. 04:00</p>	<p style="text-align: right;">Page 281</p> <p>1 in any of these extended family</p> <p>2 members. So a genetic counselor would</p> <p>3 certainly consider this family history</p> <p>4 in combination with the genetic</p> <p>5 testing results from Ms. Bondurant. 04:02</p> <p>6 BY ATTORNEY DAVIDSON:</p> <p>7 Q. Does having a mother with breast</p> <p>8 cancer and an aunt with ovarian cancer</p> <p>9 increase your risk of ovarian cancer?</p> <p>10 A. I think in this case in combination 04:02</p> <p>11 with the genetic testing, yes, it allows you</p> <p>12 to make a more complete evaluation.</p> <p>13 Q. That wasn't my question. My</p> <p>14 question is: Does having a mother with</p> <p>15 breast cancer and an aunt with ovarian 04:02</p> <p>16 cancer increase a woman's risk of having</p> <p>17 ovarian cancer?</p> <p>18 A. Yes.</p> <p>19 Q. Thank you. We can take that down.</p> <p>20 Let's talk about Ms. Converse. 04:03</p> <p>21 Ms. Converse had both a mother and an aunt</p> <p>22 with ovarian cancer; correct?</p> <p>23 ATTORNEY O'DELL: Object to the</p> <p>24 form.</p> <p>25 THE WITNESS: I'd have to pull up 04:03</p>

<p style="text-align: right;">Page 282</p> <p>1 her report. I don't recall if she --</p> <p>2 if the family history was in the --</p> <p>3 BY ATTORNEY DAVIDSON:</p> <p>4 Q. Well, let me ask the question</p> <p>5 differently so we can move things along. 04:03</p> <p>6 Would having a mother and an aunt</p> <p>7 with breast cancer increase your risk of</p> <p>8 having breast or ovarian cancer?</p> <p>9 ATTORNEY O'DELL: Objection to</p> <p>10 form. 04:04</p> <p>11 THE WITNESS: Yes, potentially.</p> <p>12 BY ATTORNEY DAVIDSON:</p> <p>13 Q. Let's go on to Ms. Gallardo. If we</p> <p>14 could look at page 22 of your report. You</p> <p>15 know that Ms. Gallardo was tested on eleven 04:04</p> <p>16 genes; correct?</p> <p>17 A. Correct.</p> <p>18 ATTORNEY O'DELL: And if you need</p> <p>19 to see any of the medical records,</p> <p>20 Dr. Levy, just let us know. 04:04</p> <p>21 BY ATTORNEY DAVIDSON:</p> <p>22 Q. I know mutations were found in</p> <p>23 these eleven genes according to your report;</p> <p>24 correct?</p> <p>25 A. That's correct. 04:04</p>	<p style="text-align: right;">Page 284</p> <p>1 to ovarian cancer as well.</p> <p>2 Q. Are there genetic mutations known</p> <p>3 to be pathogenic for ovarian cancer that are</p> <p>4 only found by BART testing?</p> <p>5 ATTORNEY O'DELL: Object to the 04:06</p> <p>6 form.</p> <p>7 THE WITNESS: Specific to ovarian</p> <p>8 cancer, I'm not aware of -- I'm not</p> <p>9 aware of any specific mutations that</p> <p>10 are based on rearrangements in BRCA1 04:06</p> <p>11 and 2 that are pathogenic strictly to</p> <p>12 ovarian cancer.</p> <p>13 BY ATTORNEY DAVIDSON:</p> <p>14 Q. You're not aware of genetic</p> <p>15 mutations in BRCA genes known to be 04:06</p> <p>16 pathogenic for ovarian cancer that are only</p> <p>17 found by BART testing?</p> <p>18 ATTORNEY O'DELL: Object to the</p> <p>19 form.</p> <p>20 THE WITNESS: I said specific to 04:06</p> <p>21 ovarian cancer. BRCA1 has a risk for</p> <p>22 both breast and ovarian cancer. As</p> <p>23 long as that satisfies the requirement</p> <p>24 for being pathogenic to ovarian,</p> <p>25 then -- there is a growing body of 04:06</p>
<p style="text-align: right;">Page 283</p> <p>1 Q. Are you aware that the panel that</p> <p>2 she had was done for endometrial cancer and</p> <p>3 not ovarian cancer?</p> <p>4 A. I would have to -- let me look at</p> <p>5 the -- 04:05</p> <p>6 Q. I could put it up.</p> <p>7 A. Sure.</p> <p>8 ATTORNEY DAVIDSON: Noah, do you</p> <p>9 want to put the exhibit? Would that</p> <p>10 be 14? 15? I'm lost. 04:05</p> <p>11 ATTORNEY EPSTEIN: That would be</p> <p>12 16. I'm putting it in the chat right</p> <p>13 now.</p> <p>14 (Exhibit Number 16 was marked for</p> <p>15 identification.) 04:05</p> <p>16 BY ATTORNEY DAVIDSON:</p> <p>17 Q. Do you see where it says</p> <p>18 endometrial cancer panel?</p> <p>19 A. I do.</p> <p>20 Q. Do you know whether or not she 04:05</p> <p>21 received BART testing, B-A-R-T?</p> <p>22 A. I'm not aware if she did or did</p> <p>23 not, but certainly the endometrial cancer</p> <p>24 panel of the eleven genes, at least nine of</p> <p>25 the eleven would be also strongly relevant 04:05</p>	<p style="text-align: right;">Page 285</p> <p>1 evidence now that the technical</p> <p>2 capabilities allow BART testing to</p> <p>3 occur, then in addition to single</p> <p>4 nucleotide variants, there are now</p> <p>5 rearrangements and other structural 04:07</p> <p>6 variants that are beginning to be</p> <p>7 associated with both breast and</p> <p>8 ovarian cancer. The body of that</p> <p>9 evidence is evolving.</p> <p>10 BY ATTORNEY DAVIDSON: 04:07</p> <p>11 Q. Are you aware that over 10 percent</p> <p>12 of genetic mutations in BRCA genes that are</p> <p>13 known to be pathogenic for ovarian cancer</p> <p>14 can only be found by BART testing?</p> <p>15 ATTORNEY O'DELL: Object to the 04:07</p> <p>16 form.</p> <p>17 THE WITNESS: As I said, yes, that</p> <p>18 will be a continually evolving number</p> <p>19 as far as an absolute percentage --</p> <p>20 BY ATTORNEY DAVIDSON: 04:07</p> <p>21 Q. Is this --</p> <p>22 ATTORNEY O'DELL: I'm sorry. He's</p> <p>23 not finished.</p> <p>24 BY ATTORNEY DAVIDSON:</p> <p>25 Q. Ms. Gallardo was not tested for 04:07</p>

<p style="text-align: right;">Page 286</p> <p>1 RAD51; correct?</p> <p>2 A. RAD51 was not part of the oncogene</p> <p>3 DX panel, the endometrial panel.</p> <p>4 Q. That would be part of comprehensive</p> <p>5 panel for ovarian cancer; right? 04:08</p> <p>6 ATTORNEY O'DELL: Object to the</p> <p>7 form.</p> <p>8 THE WITNESS: It may be part,</p> <p>9 certainly. As we discussed earlier,</p> <p>10 the genetic testing field is evolving, 04:08</p> <p>11 and I think unfortunately most of</p> <p>12 these patients, you know, are</p> <p>13 observing that evolution in real time.</p> <p>14 BY ATTORNEY DAVIDSON:</p> <p>15 Q. Her panel also did not include 04:08</p> <p>16 BRIP1; right?</p> <p>17 A. That's correct.</p> <p>18 Q. Also relevant to ovarian cancer;</p> <p>19 right?</p> <p>20 A. Yes, potentially. 04:08</p> <p>21 Q. Are you familiar with PALB2?</p> <p>22 A. PAL2, yes.</p> <p>23 Q. Also relevant to ovarian cancer?</p> <p>24 A. I'd have to remind myself of the</p> <p>25 details of that gene to give you an idea of 04:08</p>	<p style="text-align: right;">Page 288</p> <p>1 associated with ovarian cancer because she</p> <p>2 wasn't tested for all of those genetic</p> <p>3 mutations; correct?</p> <p>4 A. Yeah, I can only evaluate the</p> <p>5 testing results that were provided for 04:10</p> <p>6 Ms. Gallardo.</p> <p>7 Q. Okay. Let's move on to</p> <p>8 Ms. Judkins. You say in your report that</p> <p>9 she had a VUS; right? Ovarian of unknown</p> <p>10 significance and PTEN? 04:10</p> <p>11 A. That's correct.</p> <p>12 Q. You concluded that her specific</p> <p>13 mutation is not associated with an increased</p> <p>14 risk of ovarian cancer; right?</p> <p>15 A. Well, I reported that there is no 04:10</p> <p>16 evidence to define that specific mutation as</p> <p>17 being a pathogenic variant or has yet to be</p> <p>18 associated with an increased risk of ovarian</p> <p>19 cancer. As I discussed in some of those</p> <p>20 supporting sentences as to why, just given 04:11</p> <p>21 the number of variants that have -- that are</p> <p>22 known in PTEN being over 1,000 and an</p> <p>23 additional little over 1,000 being annotated</p> <p>24 as variants of unknown significance so that</p> <p>25 I think those statements remain as stated. 04:11</p>
<p style="text-align: right;">Page 287</p> <p>1 how relevant relative to some of the others</p> <p>2 that were tested for. Again, there's a</p> <p>3 continually growing list of genes involved</p> <p>4 in the initiation and progression of cancer,</p> <p>5 both well known and, therefore, on these 04:09</p> <p>6 panels and then becoming more well known as</p> <p>7 more and more evidence is derived from</p> <p>8 genomic technologies.</p> <p>9 Q. So you can't rule out genetic</p> <p>10 mutations as a cause of Ms. Gallardo's 04:09</p> <p>11 ovarian cancer because she wasn't tested for</p> <p>12 every possible gene; right?</p> <p>13 ATTORNEY O'DELL: Object to the</p> <p>14 form.</p> <p>15 THE WITNESS: So, again, I'm not 04:09</p> <p>16 aware of any gene mutation, whether it</p> <p>17 be rearrangement or single nucleotide</p> <p>18 genes that is directly causative of</p> <p>19 ovarian cancer. There's a large body</p> <p>20 of evidence, as we've been discussing, 04:09</p> <p>21 around genetic testing and variance</p> <p>22 that increase the risk of.</p> <p>23 BY ATTORNEY DAVIDSON:</p> <p>24 Q. You can't rule out that</p> <p>25 Ms. Gallardo had genetic mutations that are 04:10</p>	<p style="text-align: right;">Page 289</p> <p>1 Q. Can you cite any scientific</p> <p>2 literature supporting your statements?</p> <p>3 A. So I cited -- 26 is the report from</p> <p>4 Judkins. These numbers were pulled from</p> <p>5 ClinVar. 04:11</p> <p>6 Q. My question is: Can you cite</p> <p>7 anything in the scientific literature to</p> <p>8 support your position that her VUS was not a</p> <p>9 pathogenic variant?</p> <p>10 ATTORNEY O'DELL: Objection. 04:12</p> <p>11 Asked and answered.</p> <p>12 THE WITNESS: Yes, I can provide</p> <p>13 that citation.</p> <p>14 BY ATTORNEY DAVIDSON:</p> <p>15 Q. What is that? 04:12</p> <p>16 A. Again, based on the information</p> <p>17 that's available in ClinVar, which is --</p> <p>18 included appropriate references when</p> <p>19 applicable.</p> <p>20 Q. Now, Ms. Judkins also had tumor 04:12</p> <p>21 testing done; right?</p> <p>22 A. I'm trying to recall. I didn't</p> <p>23 mention the tumor testing in the report.</p> <p>24 Are you referring to the genomic instability</p> <p>25 test? 04:13</p>

<p style="text-align: right;">Page 290</p> <p>1 Q. Uh-huh. What causes genomic 2 instability in a tumor? 3 A. Generally it's -- I'm trying to 4 think of the most appropriate way to phrase 5 it succinctly. So generally a loss of DNA 04:13 6 repair of specific types can result in a 7 genomic instability measure, which is then 8 looked at when there's either clear evidence 9 of a homologous recombination deficiency or 10 other DNA repair or DNA maintenance, 04:14 11 deficiencies that exist in the tumor. 12 Because those pathways are not as 13 well understood, a surrogate for that is 14 looking at various targets across the 15 genome, so not specific to any one gene, and 04:14 16 looking at those targets across the genome 17 to see what the stability of microsatellite 18 sites, small repeats, et cetera, and that 19 the stability or lack of stability in those 20 sites gives an indication of the overall 04:14 21 genomic instability and then can be 22 summarized as a high, medium, low marker, 23 again, depending on the test and how it's 24 done. 25 Q. Can genomic instability be 04:14</p>	<p style="text-align: right;">Page 292</p> <p>1 was located in a region of poor 2 conservation. 3 Q. Did you research whether there are 4 any papers that tie MUTYH mutations to 5 ovarian cancer? 04:16 6 A. I believe I looked. That's where I 7 found the Rodriguez and Rojas, the Condello 8 paper from 2023. 9 Q. Are there any other papers that 10 find that MUTYH mutations carry an increased 04:16 11 risk of ovarian cancer? 12 A. I didn't find any for this specific 13 variant. 14 ATTORNEY DAVIDSON: I've got 15 nothing else at the moment. 04:17 16 ATTORNEY O'DELL: Okay. 17 ATTORNEY DAVIDSON: Do you want to 18 take a break? 19 ATTORNEY O'DELL: Let's take a 20 short five-minute break, and we'll 04:17 21 come back. 22 ATTORNEY DAVIDSON: Great. 23 (Recess taken from 4:17 p.m. to 24 4:51 p.m.) 25 04:52</p>
<p style="text-align: right;">Page 291</p> <p>1 indicative of a germline mutation? 2 A. So certainly having genomic 3 instability as a germline mutation, there 4 may be an association with a germline 5 mutation, but it also may be a somatic or 04:15 6 spontaneous mutations as well. 7 Q. Let's talk about Ms. Newsome for a 8 minute. She underwent testing on 25 genes; 9 right? 10 A. Using the MyRisk test from Myriad 04:15 11 Genetics, correct. 12 Q. Her genetic testing revealed a 13 variant known as MUTYH; right? 14 A. Correct. 15 Q. And that's associated with an 04:15 16 increased risk of some cancers; right? 17 A. That's correct. 18 Q. And you concluded that that's not 19 associated with an increased risk of ovarian 20 cancer; right? 04:15 21 A. Correct. I made that conclusion 22 based on this mutation being annotated as a 23 VUS as well as the conflicting findings with 24 respect to breast cancer as well. So it's 25 primarily because of her specific mutation 04:15</p>	<p style="text-align: right;">Page 293</p> <p>1 EXAMINATION 2 BY ATTORNEY O'DELL: 3 Q. Dr. Levy, I have a couple of 4 follow-up questions, a few follow-up 5 questions. 04:52 6 First, let me take you back to some 7 questions that were asked about your CV and 8 specifically number 167 on your CV listing 9 your published literature. 167 you were 10 asked about -- first author is Bhatia, and 04:52 11 the name of the study is: Magnetic 12 Resonance Imaging Characteristics in Case of 13 TOR1AIP1 Muscular Dystrophy published in 14 2019. 15 I'm going to mark that for the 04:52 16 record as Exhibit 17. 17 (Exhibit Number 17 was marked for 18 identification.) 19 BY ATTORNEY O'DELL: 20 Q. Jennifer is going to put it in the 04:52 21 chat. 22 Dr. Levy, was this a published as a 23 part of the work of a consortium? 24 A. It was. 25 Q. What was the name of the 04:53</p>

<p style="text-align: right;">Page 294</p> <p>1 consortium?</p> <p>2 A. This was part of the Undiagnosed</p> <p>3 Disease Network. I think we covered this a</p> <p>4 bit earlier. I think in this case now being</p> <p>5 able to see some of the members, I think I 04:53</p> <p>6 was roughly correct in the estimate of the</p> <p>7 size of the consortium as was talked about</p> <p>8 around a hundred or so members. And you can</p> <p>9 also see the notation of some of the</p> <p>10 affiliations being both Vanderbilt 04:53</p> <p>11 University, which was the main clinical site</p> <p>12 that we supported. As I mentioned, I was a</p> <p>13 co-investigator on this grant for a period</p> <p>14 of about four years while I was at</p> <p>15 HudsonAlpha. 04:53</p> <p>16 Q. Were you one of the collaborators</p> <p>17 on this paper?</p> <p>18 A. Correct. That's right.</p> <p>19 Q. As a collaborator and as one of the</p> <p>20 principal investigators of the research, 04:54</p> <p>21 would it be appropriate for you to list this</p> <p>22 publication on your curriculum vitae?</p> <p>23 A. Again, it's a project I'd supported</p> <p>24 and was part of on an ongoing basis. For</p> <p>25 those not familiar with the Undiagnosed 04:54</p>	<p style="text-align: right;">Page 296</p> <p>1 UDN paper. This was a multi-author paper</p> <p>2 where rather than indicating each of the</p> <p>3 authors individually in the author line, it</p> <p>4 was indicated as a consortium. This and the</p> <p>5 previous paper do, in fact -- if you search 04:55</p> <p>6 my name in PubMed, these papers come up</p> <p>7 because the full consortia author list is</p> <p>8 indexed in PubMed.</p> <p>9 Q. Is that a reference that's</p> <p>10 appropriately included in your curriculum 04:55</p> <p>11 vitae?</p> <p>12 A. It is.</p> <p>13 Q. I'd also like to have you turn in</p> <p>14 your curriculum vitae, if you wouldn't mind,</p> <p>15 Dr. Levy, to references 141 and 142. Just 04:56</p> <p>16 let me know when you get there.</p> <p>17 A. One second.</p> <p>18 Q. 141 and 142.</p> <p>19 A. I'm looking at it in the amended</p> <p>20 report on page 64. 04:56</p> <p>21 Q. Okay. And are these two</p> <p>22 references -- first Da Mesquita published in</p> <p>23 2018 and Dickinson published also in 2018.</p> <p>24 Are those papers that were published while</p> <p>25 you were head of HudsonAlpha? 04:56</p>
<p style="text-align: right;">Page 295</p> <p>1 Disease Network, very briefly this is a</p> <p>2 national consortium that provides advanced</p> <p>3 genetic testing to patients that have</p> <p>4 undergone a diagnostic odyssey. It's mainly</p> <p>5 very rare disease for both adults and 04:54</p> <p>6 pediatric cases.</p> <p>7 Q. I'd like to now talk to you about</p> <p>8 what was publication number 169 on your CV.</p> <p>9 First author was Das, D-a-s, and it was</p> <p>10 published in 2019. It's entitled: The 04:54</p> <p>11 Extracellular RNA Communication Consortium:</p> <p>12 Establishing Foundational Knowledge and</p> <p>13 Technologies for Extracellular RNA Research,</p> <p>14 published in Cell.</p> <p>15 We'll mark that as Exhibit 18. 04:54</p> <p>16 (Exhibit Number 18 was marked for</p> <p>17 identification.)</p> <p>18 BY ATTORNEY O'DELL:</p> <p>19 Q. I'll provide you with a copy. Was</p> <p>20 this paper published by a consortium? 04:55</p> <p>21 A. It was.</p> <p>22 Q. Which consortium?</p> <p>23 A. The Extracellular RNA Communication</p> <p>24 Consortium of which I was a member. Very</p> <p>25 similar to what we just discussed with the 04:55</p>	<p style="text-align: right;">Page 297</p> <p>1 A. They were. And so in looking at</p> <p>2 these more carefully -- and I don't have a</p> <p>3 specific mechanistic explanation for the</p> <p>4 author line. But if you look in the PubMed</p> <p>5 central reference, which these papers are in 04:57</p> <p>6 full text in there, you can find</p> <p>7 acknowledgments in both of my laboratory at</p> <p>8 HudsonAlpha.</p> <p>9 So this was either a misannotation</p> <p>10 as -- typically in a laboratory like mine is 04:57</p> <p>11 you would annotate all the publications that</p> <p>12 you supported as a laboratory and a subset</p> <p>13 of those publications you had more</p> <p>14 involvement with as a co-author.</p> <p>15 What I would have to carefully go 04:57</p> <p>16 back in my records and find out is if I was</p> <p>17 potentially an author on an earlier version</p> <p>18 of the paper or if this was a misannotation</p> <p>19 from both the laboratory versus my</p> <p>20 participation. 04:57</p> <p>21 But in these two examples there's</p> <p>22 clear annotation of the participation of the</p> <p>23 laboratory directly in these publications as</p> <p>24 it's acknowledged. This was either a</p> <p>25 misannotation or a change in authorship from 04:57</p>

<p style="text-align: right;">Page 298</p> <p>1 a pre-print and when it evolved into a final 2 peer-reviewed version. I'd have to 3 potentially make that correction. 4 Q. So let me ask you now to turn -- 5 A. Maybe just address since it was 04:58 6 mentioned as -- questioned as whether or not 7 this was ethical or not during the -- 8 certainly as a -- it's something that needs 9 to be addressed from an annotation 10 perspective, but from an ethics perspective, 04:58 11 there's a very clear and reasonable 12 explanation as to how these got included. 13 Q. Dr. Levy, let me ask you to turn in 14 your report, please, to page 2. 15 A. Okay. 04:58 16 Q. And ask you what was your 17 assignment? What were you asked to do in 18 this case? 19 A. Oh, so I was asked to -- specific 20 to this report? 04:58 21 Q. Yes. 22 A. It was to update the previous 23 report with respect to the literature 24 supporting the biological plausibility of 25 talc playing a role in ovarian cancer. 04:59</p>	<p style="text-align: right;">Page 300</p> <p>1 totality of evidence to evaluate the 2 biologically plausible mechanism or 3 mechanisms by which talc can result in 4 ovarian cancer? 5 A. I did. 05:00 6 Q. You were asked a number of 7 questions about epidemiology and 8 epidemiologic studies. As a part of your 9 review, did you review the epidemiologic 10 literature? 05:00 11 A. I did. 12 Q. Specifically I'd like to ask you to 13 turn in your report to page 15 and 16, 14 actually looking at 16. Do you cite a 15 review paper I think was marked as an 05:01 16 exhibit, Exhibit 11, Wentzensen and O'Brien 17 published in 2021? 18 A. Yeah, the top of page 16, yeah. 19 Q. And I'd like to ask you to look at 20 the Wentzensen and O'Brien publication. 05:01 21 Does it contain a comprehensive summary of 22 the epidemiologic data as of 2021? 23 A. Yes, it appeared -- it appears to 24 be a, as the title suggests, a summary of 25 the epidemiological evidence at the time of 05:02</p>
<p style="text-align: right;">Page 299</p> <p>1 Q. Were you also asked to evaluate the 2 genetic testing of six plaintiffs? 3 A. That's correct. The six plaintiffs 4 we discussed earlier. 5 Q. And what was your methodology? In 04:59 6 terms of your general opinions, what was 7 your methodology in reaching those opinions? 8 A. The general methodology was I think 9 fairly standard in that it was a literature 10 review of the peer-reviewed literature 04:59 11 primarily, but secondarily to that also a 12 review of other available sources, again, 13 depending on whether I was looking at 14 citations, whether I was looking at 15 additional material in databases like 04:59 16 ClinVar. 17 Overall, it was meant to be a 18 systematic and as comprehensive as possible 19 review with a focus on that particular 20 request, which is evidence supporting the 05:00 21 role that talc may play in ovarian cancer. 22 I was not asked to provide opinions on 23 causation or focus on any one specific area 24 of the field. 25 Q. And specifically did you review the 05:00</p>	<p style="text-align: right;">Page 301</p> <p>1 publication which, as you stated, was 2021. 2 Q. Is it fair to say that the prior 3 studies that have been published on the 4 question of the genital use of talc and 5 ovarian cancer, the results were summarized 05:02 6 in the Wentzensen and O'Brien review paper? 7 A. That's correct. Mostly in table 8 form. 9 Q. If you'll look at Table 3 of the 10 paper, does it include the data and results 05:02 11 from the O'Brien pooled study of -- pooled 12 analysis of cohort studies? 13 A. It does. 14 Q. And is that something you 15 considered in reaching your opinions in this 05:02 16 case? 17 A. It does as part of the overall 18 literature and overall data that was 19 summarized in this paper. 20 Q. And specifically I'd like to direct 05:02 21 you to language on the same page, which is 22 page 7 of the copy I have of the paper. As 23 it relates to the association of genital use 24 of talc and serous ovarian cancer, what does 25 it say? 05:03</p>

<p style="text-align: right;">Page 302</p> <p>1 A. At the bottom of the first 2 column above Table 3 quoting the paper it 3 says: Overall these results consistently 4 demonstrate that there was a positive 5 association between talc use and serous 05:03 6 ovarian cancers and possibly also 7 endometrial tumors. 8 Q. Thank you. 9 Then I'd like to direct you now to 10 page -- also page 16, sorry, of your report. 05:03 11 And you cite the Brieger study. Do you 12 recall that discussion? 13 A. I do. 14 Q. I'm not sure it was marked for the 15 record. We will do that and put it in the 05:04 16 chat and mark it as Exhibit 19. 17 (Exhibit Number 19 was marked for 18 identification.) 19 BY ATTORNEY O'DELL: 20 Q. Let me ask you, Dr. Levy, why did 05:04 21 you include the Brieger paper as part of 22 your report? 23 A. With the remit as we were talking 24 about earlier of having as comprehensive a 25 review of the evidence regarding the role of 05:04</p>	<p style="text-align: right;">Page 304</p> <p>1 accused you of plagiarizing aspects of your 2 report. 3 So let me ask you: Did you 4 plagiarize any aspect of your expert report, 5 either the 2018 version or the 2023 version? 05:06 6 A. To directly answer, no. To be 7 clear, the questions focused on single and 8 individual sentences, not paragraphs or 9 passages. In both cases, again, getting 10 back to what was asked in the 2018, 2019 05:06 11 report and in this report, the request was a 12 review of the totality of information 13 available. So that meant reviewing and 14 reading and then consolidating a variety of 15 sources. 05:06 16 So for facts that were -- that are 17 generally acceptable or quite well known, I 18 did not make an effort to make sure that 19 those were all specifically cited. It's not 20 a surprise that, again, those individual or 05:07 21 singular sentences are worded in a similar 22 manner to what may appear -- what may have 23 been appeared in websites or other resources 24 that were reviewed during that process. 25 Q. Would it be fair to say for 05:07</p>
<p style="text-align: right;">Page 303</p> <p>1 talc in ovarian cancer, one of the themes 2 that continually came up in that was the 3 role of inflammation in cancer progression, 4 and seeing -- and part of that searching 5 discovered or came across this particular 05:04 6 paper which was looking at 7 inflammation-related risk scores associated 8 with ovarian cancer survival. I thought it 9 was relevant to that same area of biological 10 plausibility; so I included it as a 05:05 11 reference in the report. 12 Q. And on page -- on my copy, page 4, 13 the paper in the introduction, do the 14 authors specifically talk about chronic 15 inflammation and its role in initiation of 05:05 16 cancer? 17 A. The authors do, and they cite 18 chronic inflammation as being able to -- 19 quoting the paper, chronic inflammation can 20 directly cause DNA damage, which is 05:05 21 particularly relevant for cancer initiation 22 and progression. 23 Q. You were also asked a number of 24 questions about your report from 2018, and 25 counsel for Johnson & Johnson essentially 05:06</p>	<p style="text-align: right;">Page 305</p> <p>1 fundamental definitions that are just basic 2 definitions, that the same definition often 3 appears in many citations, whether it be a 4 scientific reference, a website, or 5 something else? 05:07 6 A. That's correct. For specific, I 7 think, summary facts, particularly as they 8 relate to either scientific principles or 9 simple medical positioning, the wording is 10 often very similar or the same across those 05:07 11 types of resources. 12 Q. Now, I ask you now to turn to 13 page 13 of your report, please. 14 A. Okay. 15 Q. And you were asked in the second 05:08 16 paragraph about a reference to Trabert 2014 17 in regard to the use of aspirin. Do you see 18 that? The second paragraph, second to last 19 line. 20 A. Yes. Yeah. 05:08 21 Q. And counsel for Johnson & Johnson 22 suggested that you had not included more 23 recent studies that evaluated the uses -- 24 use of NSAIDs and the risk of ovarian 25 cancer. 05:08</p>

<p style="text-align: right;">Page 306</p> <p>1 Do you recall those questions?</p> <p>2 A. I do.</p> <p>3 Q. And, in fact, you know, looking at</p> <p>4 your paragraph, have you cited up-to-date</p> <p>5 literature regarding the use of aspirin and 05:09</p> <p>6 ovarian cancer?</p> <p>7 A. There's a second reference, the</p> <p>8 Hurwitz and Webb 2023 reference that's at</p> <p>9 the bottom of that paragraph.</p> <p>10 Q. I'm going to hand you the Hurwitz 05:09</p> <p>11 paper. We'll mark that as Exhibit 20.</p> <p>12 (Exhibit Number 20 was marked for</p> <p>13 identification.)</p> <p>14 BY ATTORNEY O'DELL:</p> <p>15 Q. Is Exhibit 20 the paper that you 05:09</p> <p>16 reference there?</p> <p>17 A. Yes.</p> <p>18 Q. And when was it published?</p> <p>19 A. July 2022. First online. I think</p> <p>20 that's where the disconnect is to the final 05:09</p> <p>21 print date which is later in 2023.</p> <p>22 Q. Okay. And was this a study that</p> <p>23 examined aspirin to determine if the use of</p> <p>24 aspirin could decrease the risk of ovarian</p> <p>25 cancer? 05:10</p>	<p style="text-align: right;">Page 308</p> <p>1 meta-analysis like was done in this paper.</p> <p>2 Q. Thank you.</p> <p>3 Then I'd like now to turn your</p> <p>4 attention to the Taher paper, and Taher was</p> <p>5 marked previously as Exhibit 9 to the 05:11</p> <p>6 deposition. I'll hand it to you.</p> <p>7 On page 98 you were asked about</p> <p>8 Table 4 and specifically the GRADE analysis,</p> <p>9 G-R-A-D-E analysis. You offered to explain</p> <p>10 your opinion about the relevance of that, 05:12</p> <p>11 and you didn't have an opportunity. So I</p> <p>12 wanted to give that to you now.</p> <p>13 Does what was stated in the paper</p> <p>14 about the GRADE analysis affect your opinion</p> <p>15 that this is something that should be 05:12</p> <p>16 considered in reaching your conclusions in</p> <p>17 this case?</p> <p>18 A. Well, I think the totality of the</p> <p>19 information in the paper is important. The</p> <p>20 earlier questions focused on the specific 05:12</p> <p>21 grades that are part of the GRADE working</p> <p>22 group. I think it was certainly appropriate</p> <p>23 for a paper like this to provide a clear</p> <p>24 framework and reference to that framework</p> <p>25 and detail that framework appropriately for 05:12</p>
<p style="text-align: right;">Page 307</p> <p>1 A. It was a meta-analysis looking at</p> <p>2 that question.</p> <p>3 Q. And -- and what were the</p> <p>4 conclusions?</p> <p>5 A. The conclusions were that this was 05:10</p> <p>6 the largest to date aspirin use and ovarian</p> <p>7 cancer study, and the authors conclude,</p> <p>8 quoting the authors, provides evidence that</p> <p>9 frequent aspirin use is associated with</p> <p>10 lower ovarian cancer risk regardless of the 05:10</p> <p>11 presence of most other ovarian cancer risk</p> <p>12 factors.</p> <p>13 Q. And is that paper supportive of</p> <p>14 your opinions in this case that one of the</p> <p>15 biologic mechanisms of ovarian cancer is 05:10</p> <p>16 chronic inflammation?</p> <p>17 A. Correct, it is. It is supportive</p> <p>18 of that. If chronic inflammation plays a</p> <p>19 significant role in -- an aspect, not the</p> <p>20 only aspect, but an aspect, that you would 05:11</p> <p>21 expect at some level is if you can diminish</p> <p>22 inflammation, then you may change in some</p> <p>23 cases the overall either progression or risk</p> <p>24 for the disease. I would say that would</p> <p>25 become likely most apparent in a cohort or 05:11</p>	<p style="text-align: right;">Page 309</p> <p>1 their conclusions. And appropriate to how</p> <p>2 they applied them.</p> <p>3 The opportunity that we didn't have</p> <p>4 to address at the earlier question was the</p> <p>5 other two footnotes that were provided, 05:13</p> <p>6 footnotes C and D in Table 4, which those</p> <p>7 begin to describe that the -- two things.</p> <p>8 Footnote C quotes 24 studies were case</p> <p>9 control studies indicating recall bias may</p> <p>10 be an issue given long latency periods. 05:13</p> <p>11 That's always going to be a</p> <p>12 challenge with a framework like GRADE.</p> <p>13 Anything with long latency periods or cohort</p> <p>14 studies by the nature of the GRADE framework</p> <p>15 are going to be -- you're going to see a 05:13</p> <p>16 lower overall score in terms of the</p> <p>17 certainty of the evidence through the GRADE</p> <p>18 framework. GRADE frameworks, stated simply,</p> <p>19 are most appropriate for randomized control</p> <p>20 trials. The totality of the evidence now 05:13</p> <p>21 regarding talc, it would be impossible or</p> <p>22 unethical to run a randomized control trial</p> <p>23 based on talc exposure. You do the best you</p> <p>24 can with what you have.</p> <p>25 The other footnote D was that three 05:13</p>

<p style="text-align: right;">Page 310</p> <p>1 studies were indeed cohort studies and were 2 assessed as having a relatively short 3 follow-up period. So, therefore, latency 4 again comes into play here. The conclusions 5 in the paper indicating that there remains a 05:14 6 positive association, even though the GRADE 7 score was indicated as very low, the authors 8 took quite a bit of effort to explain why it 9 was low and indicate the relative 10 positioning on the application of the GRADE 05:14 11 framework to the study design. 12 Q. Thank you. You were also asked 13 about -- on page 16 of your report, 14 specifically studies that looked at talc and 15 the use of not only talc but store-bought 05:14 16 douches, as well as a combination of both. 17 Do you see that? You cited Gabriel and 18 Vitonis in 2019 and O'Brien and D'Aloisio in 19 2019. 20 Do you see that? 05:15 21 A. I do. 22 Q. I want to mark for the record what 23 is going to be Exhibit 21, which is the 24 Gabriel 2019 study. 25 ///</p>	<p style="text-align: right;">Page 312</p> <p>1 from an epidemiology perspective by not 2 crossing the 95th confidence interval 1, 3 that's a positive association. 4 Then for women who regularly used 5 talc or douched, that rose to 1.53 with a 05:16 6 95th percent confidence interval of 1.11 to 7 2.10. 8 Q. Was the inclusion of O'Brien and 9 D'Aloisio 2019 simply an error in citation? 10 A. It was an error in wording in 05:17 11 the -- either in wording or in citation, 12 since that was uterine cancer. It was in 13 the same methodological space or the same 14 biological space looking at talc use and 15 douching. 05:17 16 Q. You were also asked a series of 17 questions about some Tweets. I think they 18 were asked in the framework of whether it 19 was your current employer. One, are you 20 familiar with the Tweets that were being 05:17 21 referenced? 22 A. I'm assuming -- since we didn't 23 introduce the Tweets as an exhibit, I am 24 aware, though. There was a long-standing 25 series of what I actually think we were 05:18</p>
<p style="text-align: right;">Page 311</p> <p>1 (Exhibit Number 21 was marked for 2 identification.) 3 BY ATTORNEY O'DELL: 4 Q. Dr. Levy, take a look at that for a 5 moment. When you have time to take a look, 05:15 6 I'll ask you a question. 7 A. Okay. 8 Q. Does the Gabriel 2019 find a 9 positive association between talc use with 10 or without douching in ovarian cancer? 05:15 11 A. It does. 12 Q. Are the sentences you included in 13 your report regarding douching and talc 14 use -- are they supported by the Vitonis 15 2019 reference? 05:16 16 A. That's correct. Quoting the paper 17 to be sure that there's clarity, the results 18 of this paper as far as an odds ratio for 19 women who had douched but never used talc 20 was .94 with a 95 percent confidence 05:16 21 interval of .76 to 1.16. 22 However, in women who used talc but 23 never douched, the odds ratio was 1.28, the 24 95th confidence interval being 1.09 to 1.51. 25 As we discussed earlier in the testimony, 05:16</p>	<p style="text-align: right;">Page 313</p> <p>1 quite proud of when I was at HudsonAlpha. 2 This was work that was done in collaboration 3 with my group. That was providing access to 4 genetic testing to women actually -- men 5 were eligible as well. They were in later 05:18 6 years. It was to make breast and ovarian 7 risk testing more accessible. 8 First we did that across the state 9 of Alabama and then expanded that more 10 broadly throughout the Southeast actually 05:18 11 for a number of years. Ultimately it was 12 being processed in a company called Kailos 13 Genetics, and they continued that even after 14 as a private company for a period of time. 15 But those Tweets were mainly 05:18 16 focused, or my recollection of those Tweets 17 that they were mainly focused around the 18 promotion of that program as well as making 19 announcements through HudsonAlpha's social 20 media channels, which are of course directed 05:18 21 at collaborators and other scientists as 22 well, highlighting those programs and 23 highlighting some of these program features. 24 Q. Based on your knowledge and 25 recollection of those Tweets or that 05:19</p>

<p style="text-align: right;">Page 314</p> <p>1 information that was being provided to the 2 public and collaborators, was the focus on 3 the information that genetic testing was 4 inaccurate as was suggested? 5 A. No, I think the focus wasn't on the 05:19 6 accuracy or inaccuracy of a specific test. 7 It was more a focus on highlighting that 8 rapid revolution of testing technologies. 9 And in this case, the testing was done 10 across a cohort of genes. From a technical 05:19 11 perspective, BRCA1 and 2 and even genes like 12 P53, there are challenges to testing them 13 accurately and testing them comprehensively 14 just because of the challenges around their 15 sequences. There is a lot of those releases 05:19 16 and things were really indicating the 17 advancements that were being made in the 18 testing space. 19 We were trying to be attractive to 20 the public in terms of accessibility of 05:20 21 testing so that those that were interested 22 in it could know that they could access it, 23 and they were also trying to address 24 technological questions about are we doing 25 it accurately, why have it done at 05:20</p>	<p style="text-align: right;">Page 316</p> <p>1 the same category. 2 My analysis and the effort of this 3 report was, again, as been stated numerous 4 times, was not meant to provide a causation 5 linkage between any specific mutation or 05:21 6 even specific environmental exposure to an 7 exact causative event or initiation event or 8 even progression event. It was instead 9 focusing on that biologically plausible 10 mechanism. 05:21 11 So the way that I -- and based on 12 my experience and what we've been talking 13 about in my past history and career in terms 14 of research into different genetic risk 15 factors for a variety of diseases, including 05:21 16 different cancer types, the way I looked at 17 this was the presence or absence of those 18 mutations would, of course, impact the 19 baseline relative risk to a patient. 20 Or another way to state that is a 05:22 21 patient with a BRCA1 or 2 mutation, just 22 using those as two simple examples, would be 23 more vulnerable. If that person is more 24 vulnerable to other exposures, if you 25 introduce a mechanism of chronic 05:22</p>
<p style="text-align: right;">Page 315</p> <p>1 HudsonAlpha, questions like that. We would 2 have to go through specifics of each of 3 those Tweets, but that was the general 4 spirit of that. 5 Q. There was a question that was asked 05:20 6 about women with BRCA1 and 2 mutations, and 7 I believe I took down the question or 8 Jennifer took down the question 9 specifically. Are you aware of any 10 scientific evidence that an environmental 05:20 11 carcinogen in talc like talc would increase 12 the likelihood that BRCA1 and 2 mutation 13 would led to ovarian cancer? Do you recall 14 that question? 15 A. I do. 05:20 16 Q. Would you explain your answer to 17 that question? Would you give us your 18 analysis -- 19 A. Sure. 20 Q. -- of how talc as an environmental 05:21 21 carcinogen impacts a patient who may have 22 BRCA1 and 2 mutations? 23 A. BRCA1 and 2 are two examples. The 24 rest of the mutations we've discussed under 25 the six specific plaintiffs would fall into 05:21</p>	<p style="text-align: right;">Page 317</p> <p>1 inflammation, like we have provided that 2 plausible mechanism for talc inducing that. 3 To use an analogy, I use the 4 snowball rolling down the hill. It creates 5 a lottery ticket. By having BRCA1 or 2 05:22 6 mutations, you've already punched the first 7 three numbers in the lottery ticket. You 8 add the environmental exposure, and you only 9 have to punch three more numbers before you 10 have that initiation event. 05:22 11 I looked at the totality of that 12 testing as not necessarily one or the other; 13 right? If you have a BRCA1 mutation, you're 14 destined to 100 percent get cancer. We know 15 that's not true. But instead looking at it 05:22 16 as if you have a genetic susceptibility to 17 cancer and you then add an environmental 18 exposure on top of that, that you're just -- 19 it's a step function. If your baseline risk 20 was X and your baseline risk because of 05:23 21 genetic components was 1.3X, you add the 22 environmental exposure and both of those 23 would rise by the same relative proportion. 24 But you're still at a higher risk 25 as an individual with those genetic 05:23</p>

<p style="text-align: right;">Page 318</p> <p>1 variants. It wasn't meant to be -- it's not 2 an either/or. In fact, I would look at this 3 as those individuals with those mutations 4 would very much be more susceptible to any 5 of the negative effects of these 05:23 6 environmental factors. 7 Q. So you were asked a question 8 about -- and it was marked as Exhibit 15 -- 9 Ms. Bondurant's plaintiff fact sheet. I'll 10 share my screen to show the chart that I 05:23 11 believe that counsel for Johnson & Johnson 12 showed you. 13 Do you recall this? 14 A. I do. 15 Q. How many first degree relatives are 05:24 16 listed in this chart? 17 A. Two. 18 Q. Okay. Thank you. 19 I'm going to ask you -- 20 (Discussion off the record.) 05:24 21 BY ATTORNEY O'DELL: 22 Q. I want to ask you, Dr. Levy, 23 specifically about Ms. Judkins. You were 24 asked a series of questions about 25 Ms. Judkins and specifically that there was 05:25</p>	<p style="text-align: right;">Page 320</p> <p>1 imbalance, and large scale state transition. 2 So those three biomarkers -- again, 3 I'm just quoting from the paper or the 4 results -- are associated with essentially a 5 DNA repair defect. Stated in laymen's 05:27 6 terms, this is a measure of how damaged the 7 overall genome is in the tumor. This is 8 used as an indicator that may modulate 9 specifically what chemotherapeutic agents or 10 what targeted therapies the patient may be 05:27 11 eligible for. As more and more evidence 12 becomes available, it is associated with 13 different expectations for outcome in 14 survivorship. 15 Q. Does this test result have any 05:27 16 relevance to whether she had an inherited 17 mutation? 18 A. No. So my reading of this, because 19 they're specifically targeting single 20 nucleotide polymorphisms, which are variants 05:27 21 that have a higher prevalence in the overall 22 population. Think of this as more they're 23 kind of looking at the structure of the 24 genome rather than the function of the 25 genome, at least in this case. I'm not 05:28</p>
<p style="text-align: right;">Page 319</p> <p>1 a report in her medical records, and we'll 2 turn to it. It was -- I'm not sure it was 3 marked, but it was entitled Myriad Genomic 4 Instability Status Test Results. 5 Do you recall that? 05:25 6 A. Yes, I do. 7 Q. And if you want to turn to it, 8 Doctor, and whatever you're ready, just let 9 me know. 10 A. I thought we had it open from 05:25 11 before. Here it is, yeah. 12 Q. Let me just ask the question: 13 What's the relevance of this test? What 14 does it mean in relation to your evaluation 15 of Ms. Judkins' genetic testing? 05:26 16 A. Well, so this is specifically 17 performed on the tumor. So you would not be 18 able to infer anything about the -- her 19 germline genetics specifically from this 20 test, other than what may appear in the 05:26 21 background kind of the normal. This 22 specific test, the Myriad genomic 23 instability status as explained on the paper 24 that it is a measure of three biomarkers, 25 loss of heterozygosity, telomeric allelic 05:26</p>	<p style="text-align: right;">Page 321</p> <p>1 aware of the ability to use this as a 2 testing modality for germline mutations. 3 Q. You referenced during your 4 testimony earlier ClinVar. What is ClinVar? 5 A. So ClinVar is a public database 05:28 6 that is contributed to by all of the 7 laboratories that we've talked about today, 8 whether it be Myriad, GDX, Invitae, academic 9 laboratories, government laboratories. 10 What it acts as is it's a 05:28 11 repository of variants that either are known 12 to have clinical significance or where 13 there's gathering evidence on a clinical 14 significance. What it provides is almost a 15 realtime resource to evaluate the 05:28 16 probability or the likelihood that a variant 17 may or may not be associated. 18 There's three broad classifications 19 of variants: Things that are known to be 20 pathogenic meaning that there's strong 05:29 21 evidence to associate them to one or more 22 diseases, variants that are likely 23 pathogenic so still evidence but it may not 24 be as strong, and then variants of unknown 25 significance which means it's a variant 05:29</p>

<p style="text-align: right;">Page 322</p> <p>1 where evidence is still building.</p> <p>2 It could go either way. It could</p> <p>3 be benign. It could be significant, may</p> <p>4 depend on the genetic background, may depend</p> <p>5 on the presence of other variants. There's 05:29</p> <p>6 just not enough evidence to conclusively</p> <p>7 determine simply based on the presence or</p> <p>8 absence of that variant what that variant is</p> <p>9 doing.</p> <p>10 And then finally the last category</p> <p>11 is benign. It's a variant that's known to</p> <p>12 be -- or I should say likely benign. Again,</p> <p>13 any of those variant classifications can</p> <p>14 change. And what you see evolving in</p> <p>15 ClinVar as more and more evidence and more 05:29</p> <p>16 and more sequencing and more and more</p> <p>17 testing is done is now the growing need to</p> <p>18 have ClinVar separated soon by ancestry or</p> <p>19 ethnicity because variants that have better</p> <p>20 significance in one population may be either 05:30</p> <p>21 higher or lower significance in other</p> <p>22 populations.</p> <p>23 For the time being it just fills a</p> <p>24 need of having a publicly available</p> <p>25 reasonably comprehensive resource. Most 05:30</p>	<p style="text-align: right;">Page 324</p> <p>1 review the contributions and see who are the</p> <p>2 most common contributors to that. It's not</p> <p>3 surprising that it's consortia based. The</p> <p>4 Undiagnosed Disease Consortium has</p> <p>5 contributed many, many variants. My time at 05:31</p> <p>6 HudsonAlpha as part of some of our clinical</p> <p>7 or pediatric sequencing efforts where we've</p> <p>8 helped diagnose a little over 300 children</p> <p>9 with a variety of pediatric disorders, those</p> <p>10 variants are contributed. 05:31</p> <p>11 So it's a necessity. It's a</p> <p>12 necessity to continue to evolve to allow any</p> <p>13 reasonable assessment of these variants.</p> <p>14 Maybe to describe it a little</p> <p>15 differently, in the absence of ClinVar the 05:32</p> <p>16 only avenue you'd have is waiting for</p> <p>17 publications to come out. As we know from a</p> <p>18 study initiation all way through peer review</p> <p>19 to publication can be many months. So you</p> <p>20 can imagine the time delay that would 05:32</p> <p>21 happen. You still would have to be able to</p> <p>22 find that variant and find that association.</p> <p>23 So for all of those reasons,</p> <p>24 ClinVar has become a significant value in</p> <p>25 the space and used at a much, much higher 05:32</p>
<p style="text-align: right;">Page 323</p> <p>1 importantly for the lines of evidence that</p> <p>2 are put in there are, they're traceable.</p> <p>3 You can see who put them in, what it was</p> <p>4 based on, how many patients, what the</p> <p>5 frequency of these variants are. I would 05:30</p> <p>6 say most clinicians, genetic counselors, and</p> <p>7 researchers will use ClinVar in combination</p> <p>8 with databases like EB SNP or a variety of</p> <p>9 other sequencing databases to make a final</p> <p>10 assessment as to a variant's likelihood or 05:30</p> <p>11 non-likelihood of contributing to a</p> <p>12 particular genotype.</p> <p>13 Q. Is it generally accepted in your</p> <p>14 field to use ClinVar as a repository of</p> <p>15 information that's known about a specific 05:31</p> <p>16 mutation?</p> <p>17 A. It is. You can imagine if genetic</p> <p>18 testing results were purely just on paper,</p> <p>19 and their association with a particular</p> <p>20 phenotype would become extraordinarily 05:31</p> <p>21 onerous to keep track of even in a single</p> <p>22 laboratory.</p> <p>23 So by creating this public</p> <p>24 resource, there's been wide adoption and, in</p> <p>25 fact, substantial contribution. Anyone can 05:31</p>	<p style="text-align: right;">Page 325</p> <p>1 frequency than waiting for a particular</p> <p>2 study to come out and say prove an</p> <p>3 association or disprove an association with</p> <p>4 a particular variant.</p> <p>5 Q. Who maintains ClinVar? 05:32</p> <p>6 A. It's a government resource; so the</p> <p>7 NIH maintains it.</p> <p>8 Q. Just in summary, based on your</p> <p>9 review of the medical records that you had</p> <p>10 for these six bellwether plaintiffs, what is 05:33</p> <p>11 your opinion about whether there was</p> <p>12 evidence that they had a pathogenic mutation</p> <p>13 that related to ovarian cancer or even had</p> <p>14 an association for an increased risk of</p> <p>15 ovarian cancer? 05:33</p> <p>16 A. Yeah, so I think if you look at</p> <p>17 this, the testing that was done in the</p> <p>18 context of the types of testing modalities</p> <p>19 including clinical testing that my primary</p> <p>20 experience is in, my bias has always been to 05:33</p> <p>21 more comprehensive testing, whole genome</p> <p>22 sequencing, whole exome sequencing, et</p> <p>23 cetera, where you can then better answer the</p> <p>24 question have you left any stones unturned.</p> <p>25 The reality of these plaintiffs are 05:33</p>

<p style="text-align: right;">Page 326</p> <p>1 that the testing that was done is what it 2 is. It is what was available. In many 3 cases as was discussed, 11 to 25 genes. 4 These are limited perspectives on testing. 5 So it is difficult to be able to give a 05:34 6 comprehensive and conclusive genetic 7 predisposition score to any of these 8 patients. 9 What we know is that the genes that 10 are most strongly associated and most 05:34 11 clearly annotated in ClinVar, none of these 12 six individuals had variants in those genes. 13 Again, it doesn't indicate that they don't 14 have other risk wheels and genes that were 15 untested. They weren't tested. Therefore, 05:34 16 it wasn't able to be evaluated. 17 As I said earlier, I think the 18 status of that is not unimportant, but it 19 doesn't change the opinions or the 20 biological plausibility or mechanistic 05:34 21 aspects that were discussed in the report. 22 It would only change, as I mentioned 23 earlier, that relative risk as it relates to 24 environmental exposures like we've been 25 discussing around talc. 05:35</p>	<p style="text-align: right;">Page 328</p> <p>1 translational medicine. I drove an interest 2 in developing resources to have a closer 3 connection to patient care. 4 So while I was as HudsonAlpha, I 5 was fortunate to have actually founded a 05:36 6 clinical laboratory while there. That 7 clinical laboratory was licensed and 8 accredited as a clinical lab. We supported 9 the, of course, Undiagnosed Disease Network 10 that did involve return of results. I was 05:36 11 also fortunate to have colleagues that were 12 genetic counselors and physicians that were 13 under my supervision as participants in that 14 lab. 15 Through some generous donations 05:36 16 there's a Smith Family Clinic for Genomic 17 Medicine that now exists at HudsonAlpha. I 18 know it's the only one in the southeast. 19 It's one of the only ones in the country 20 that is a clinic specifically focused on 05:36 21 genomic medicine and precision medicine. 22 As I've mentioned, we've had 23 hundreds of pediatric cases and many adult 24 cases as well through these different 25 consortia analyzed there. What was very 05:37</p>
<p style="text-align: right;">Page 327</p> <p>1 Q. Last question. You were asked 2 about genetic counseling and whether you're 3 a genetic counselor. Would you tell us your 4 experience with genetic counselors, 5 overseeing genetic counselors. What's your 05:35 6 expertise as a person with your training, 7 experience, and position whether at 8 HudsonAlpha or at Element, how is your 9 expertise as it relates to genetic 10 counseling? 05:35 11 A. Sure. So my -- I would say my 12 career has been -- at least for an academic 13 has been somewhat non-standard in the types 14 of laboratories that I run. My research has 15 broadly been interested in the development 05:35 16 and application of technologies, but then 17 the application of those technologies to 18 further advance understanding of human 19 health and disease. 20 I was fortunate when I was at 05:35 21 Vanderbilt, I was very clinically involved 22 in both Vanderbilt-Ingram Cancer Center, the 23 digestive disease center, the diabetes 24 center, et cetera. So I was immersed into 25 what I would characterize as very 05:36</p>	<p style="text-align: right;">Page 329</p> <p>1 rewarding for me was I sat very much on the 2 technology side, continually pushing the 3 accessibility, the reliability, and the 4 resolution of that technology forward. 5 As evidence of that, my laboratory 05:37 6 was one of the -- I think was the first in 7 the United States to be CAP accreted for 8 whole genome sequencing, and this was in 9 2014 or so. I think that's correct. I'd 10 have to double-check. It was early in that 05:37 11 process. 12 And there are a number of examples 13 that you can find. Press. And it's been 14 rewarding from a career perspective because 15 I remember the names of some of the children 05:37 16 that we worked directly with. The first one 17 was at Vanderbilt while I was there, and the 18 next couple have been at HudsonAlpha. 19 As I said, not a genetics 20 counselor, but my career has been focused 05:37 21 primarily in the application of technology 22 and making sure it stays closely connected. 23 My role at Element is very simple 24 in that I oversee the scientific strategy of 25 the company. The reason that's relevant to 05:38</p>

<p style="text-align: right;">Page 330</p> <p>1 this career progression is why I</p> <p>2 transitioned to Element is very simple. As</p> <p>3 was asked in the earlier questions, there</p> <p>4 are limitation to current genetic testing.</p> <p>5 There are limitations to our ability to 05:38</p> <p>6 assay residual disease and other things.</p> <p>7 What I'm able to help Element do as</p> <p>8 a private company is we're bringing forward</p> <p>9 novel technologies that are not only looking</p> <p>10 at nucleic acid or only looking at protein. 05:38</p> <p>11 We're looking at a full spectrum and a</p> <p>12 multi-ohmic perspective including cell</p> <p>13 morphology and the ability to detect</p> <p>14 individual cells. Instead of looking for</p> <p>15 one needle in a haystack, say a specific 05:38</p> <p>16 mutation, we're looking for all of them.</p> <p>17 We're looking at a multi-modal fashion.</p> <p>18 We publicly released information on</p> <p>19 the platforms that will be launched later</p> <p>20 this year, but our goal is to fundamentally 05:38</p> <p>21 change the resolution with which we can do</p> <p>22 particularly cancer analysis.</p> <p>23 I fully expect at some point I'll</p> <p>24 likely go back to an academic pursuit, but</p> <p>25 in the meantime now I'm able to transition 05:39</p>	<p style="text-align: right;">Page 332</p> <p>1 ATTORNEY O'DELL: Noah, I'm sure</p> <p>2 you're putting it in the chat as well.</p> <p>3 I see it now. Thank you.</p> <p>4 ATTORNEY EPSTEIN: Yeah, it should</p> <p>5 be there. 05:40</p> <p>6 ATTORNEY O'DELL: Thank you.</p> <p>7 ATTORNEY EPSTEIN: No problem.</p> <p>8 THE WITNESS: Again, I'd have to</p> <p>9 look. I think this was similar to</p> <p>10 what we discussed earlier. Yes, same. 05:41</p> <p>11 So if you notice on page 1009, under</p> <p>12 library prep and sequencing where it</p> <p>13 references the HudsonAlpha Genomic</p> <p>14 Services Laboratory, Huntsville,</p> <p>15 Alabama, my laboratory supported the 05:41</p> <p>16 sequencing work.</p> <p>17 As I was explaining about the</p> <p>18 other two, this is a similar situation</p> <p>19 where either a change in authorship or</p> <p>20 misannotation from a 05:41</p> <p>21 laboratory-supported publication</p> <p>22 rather than one I was a co-author on.</p> <p>23 BY ATTORNEY DAVIDSON:</p> <p>24 Q. So is it your position that it's</p> <p>25 appropriate for you to list on your CV that 05:42</p>
<p style="text-align: right;">Page 331</p> <p>1 to developing technology that, when widely</p> <p>2 deployed, can help an even greater number of</p> <p>3 patients or researchers than I've been able</p> <p>4 to do so far.</p> <p>5 Q. Thank you. I don't think I have 05:39</p> <p>6 anything further, Doctor. Thank you.</p> <p>7 ATTORNEY DAVIDSON: What exhibit</p> <p>8 number are we up to?</p> <p>9 THE CERTIFIED STENOGRAPHER: We've</p> <p>10 marked up through 21. 05:39</p> <p>11 ATTORNEY DAVIDSON: What number</p> <p>12 was Hurwitz?</p> <p>13 ATTORNEY EMMEL: 20.</p> <p>14 ATTORNEY DAVIDSON: 20?</p> <p>15 ATTORNEY EPSTEIN: 20. 05:39</p> <p>16 ATTORNEY DAVIDSON: I'd like to</p> <p>17 mark as Exhibit 22 a paper from</p> <p>18 Papanek that's item 154 on your CV.</p> <p>19 (Exhibit Number 22 was marked for</p> <p>20 identification.)</p> <p>21</p> <p>22 FURTHER EXAMINATION</p> <p>23 BY ATTORNEY DAVIDSON:</p> <p>24 Q. Dr. Levy, what was your role in</p> <p>25 this paper? 05:40</p>	<p style="text-align: right;">Page 333</p> <p>1 you were an author of any paper that happens</p> <p>2 to mention your laboratory?</p> <p>3 ATTORNEY O'DELL: Objection to</p> <p>4 form.</p> <p>5 THE WITNESS: No, not at all. In 05:42</p> <p>6 fact, there's roughly 400 papers that</p> <p>7 would fall into this type of category.</p> <p>8 As I said, I think this was either a</p> <p>9 misannotation or a change in</p> <p>10 authorship during the development of 05:42</p> <p>11 the paper.</p> <p>12 BY ATTORNEY DAVIDSON:</p> <p>13 Q. What's a misannotation?</p> <p>14 A. So in the process of gathering</p> <p>15 papers that have citations like this as well 05:42</p> <p>16 as doing searches for papers that come out</p> <p>17 during -- as we've been describing, the</p> <p>18 development of papers there's initiation of</p> <p>19 project especially if it's a multiple</p> <p>20 institution or multiple authors, and then 05:42</p> <p>21 there's a period of time of that</p> <p>22 development, submission, revision.</p> <p>23 During revisions it's often that</p> <p>24 some experiments are removed. Others are</p> <p>25 added. So the papers evolve over that time. 05:42</p>

<p style="text-align: right;">Page 334</p> <p>1 In the case of -- certainly as not appearing 2 on the author list, this should not be 3 indicated as part of the CV as an author or 4 co-author on that paper, and I'll have to 5 make that adjustment. 05:43 6 But in explaining as to how this 7 arrived there and just providing that 8 explanation as to where this may have come 9 from. So it's not that I had no involvement 10 in this paper. It's that the paper 05:43 11 ultimately in its final peer-reviewed form, 12 I was not an author on that paper. 13 Q. But you testified that you were 14 listed as an author in a draft of this 15 paper, Doctor? 05:43 16 A. No, I wouldn't testify to that 17 today. 18 Q. Okay. Are you aware, Doctor, that 19 there's 36 papers on your CV where you're 20 not listed as an author? 05:43 21 ATTORNEY O'DELL: Object to the 22 form. 23 BY ATTORNEY DAVIDSON: 24 Q. Not just the four or five we 25 discussed today? 05:43</p>	<p style="text-align: right;">Page 336</p> <p>1 BY ATTORNEY DAVIDSON: 2 Q. You consider yourself to be a 3 co-author of any paper that lists the 4 consortium which you were one of up to a 5 hundred members? 05:44 6 ATTORNEY O'DELL: Object to the 7 form. 8 THE WITNESS: As a member of that 9 consortium -- as a member of that 10 consortium, then yes, I am a co-author 05:44 11 on the paper per the policies that 12 were described for those consortia and 13 the relative contributions. 14 BY ATTORNEY DAVIDSON: 15 Q. Doctor, we talked about the Hurwitz 05:45 16 paper, Exhibit 20. Does that paper indicate 17 anywhere that the protective effects of 18 aspirin have to do with inflammation? 19 A. Does it indicate that the 20 protective effects of aspirin have to do 05:45 21 with inflammation? 22 Q. Or anti-inflammation? 23 A. That is the only known activity of 24 aspirin that's been -- is as a non-steroidal 25 anti-inflammatory. 05:45</p>
<p style="text-align: right;">Page 335</p> <p>1 ATTORNEY O'DELL: Object to the 2 form. 3 THE WITNESS: No, I'd be very 4 surprised that there's that number. 5 In fact, I would be very confident 05:44 6 that that's a vast overestimation of 7 these type of events. 8 BY ATTORNEY DAVIDSON: 9 Q. Do you consider yourself to be an 10 author of a paper if HudsonAlpha Genomic 05:44 11 Services Laboratory is listed in the 12 acknowledgements? 13 ATTORNEY O'DELL: Object to the 14 form. Misstates his testimony. 15 You can answer. 05:44 16 THE WITNESS: As I stated, no. I 17 was providing an explanation as to how 18 these became there, but I would also 19 clarify that the consortia-based 20 papers, of which there are several, to 05:44 21 make sure that your characterization 22 of those 36 papers do not include the 23 consortia-based papers we described a 24 few moments ago. 25 ///</p>	<p style="text-align: right;">Page 337</p> <p>1 Q. Is there any reference to 2 inflammation in that paper? 3 A. Yes. Reference 3. 4 Q. In the paper itself? 5 A. Correct. 05:45 6 Q. I didn't ask in the references. I 7 asked in the paper itself. Is there any 8 reference to inflammation? 9 A. There is, yes. 10 Q. Where? 05:46 11 A. In the introduction where chronic 12 inflammation likely plays a key role in 13 ovarian carcinogenesis. 14 Q. I'm sorry. Where are you reading? 15 A. The very beginning of the 05:46 16 introduction. The third sentence. 17 Q. The third sentence of the 18 introduction says: In a pooled analysis of 19 17 cohort studies? 20 A. No, I quoted chronic inflammation 05:47 21 likely plays a key role in ovarian 22 carcinogenesis. That was your question. 23 Q. Where is that? Where in the paper 24 are you reading from? 25 A. This is Trabert. 05:47</p>

<p style="text-align: right;">Page 338</p> <p>1 ATTORNEY O'DELL: No, it's</p> <p>2 Hurwitz.</p> <p>3 THE WITNESS: We're talking about</p> <p>4 the Hurwitz paper; correct.</p> <p>5 BY ATTORNEY DAVIDSON: 05:47</p> <p>6 Q. Yeah, third sentence of the</p> <p>7 introduction says: In a pooled analysis in</p> <p>8 17 cohort and case-controlled studies. I'm</p> <p>9 just trying to see where in the Hurwitz</p> <p>10 paper are you reading that sentence. 05:47</p> <p>11 ATTORNEY O'DELL: Let me make sure</p> <p>12 the right paper was put in the chat</p> <p>13 because I didn't open that. Hurwitz,</p> <p>14 Modification of the Association</p> <p>15 between Frequent Aspirin Use and -- 05:47</p> <p>16 ATTORNEY DAVIDSON: Association of</p> <p>17 Frequent Aspirin --</p> <p>18 ATTORNEY O'DELL: Forgive me.</p> <p>19 Just for a moment. Let me finish.</p> <p>20 We're just confirming what I intended 05:47</p> <p>21 to go in the chat was the Modification</p> <p>22 of the Association between Frequent</p> <p>23 Aspirin Use and Ovarian Cancer Risks.</p> <p>24 Is that what was put in the chat?</p> <p>25 ATTORNEY EMMEL: I have the 05:47</p>	<p style="text-align: right;">Page 340</p> <p>1 ATTORNEY DAVIDSON: Genetic</p> <p>2 susceptibility. That's the paper you</p> <p>3 put in the chat is the one he cites in</p> <p>4 his report.</p> <p>5 ATTORNEY O'DELL: I'm sorry. 05:48</p> <p>6 Jennifer put the paper in the chat; so</p> <p>7 I didn't open it. The one I asked him</p> <p>8 about was Hurwitz 2022, and I think it</p> <p>9 was published in 2023. It's called</p> <p>10 Modification of the Association 05:49</p> <p>11 between Frequent Aspirin Use in</p> <p>12 Ovarian Cancer Risk, a Meta-Analysis.</p> <p>13 ATTORNEY DAVIDSON: That's not the</p> <p>14 one he cites in his report.</p> <p>15 ATTORNEY O'DELL: I believe it is. 05:49</p> <p>16 THE WITNESS: Let me make sure.</p> <p>17 ATTORNEY DAVIDSON: No. He</p> <p>18 testified that that's what he cites in</p> <p>19 his report in response to your</p> <p>20 questions. 05:49</p> <p>21 ATTORNEY O'DELL: Okay. Finish</p> <p>22 your examination, and then I'll follow</p> <p>23 up to correct that.</p> <p>24 BY ATTORNEY DAVIDSON:</p> <p>25 Q. So Dr. Levy, when you testified a 05:49</p>
<p style="text-align: right;">Page 339</p> <p>1 Association of --</p> <p>2 ATTORNEY DAVIDSON: The paper I</p> <p>3 got was the Association of Frequent</p> <p>4 Aspirin Use with Ovarian Cancer Risk</p> <p>5 According to Genetic Susceptibility. 05:48</p> <p>6 ATTORNEY O'DELL: Yes,</p> <p>7 Modification of Association is 2022 --</p> <p>8 we just -- the wrong paper was put in</p> <p>9 the chat. We'll correct that and in</p> <p>10 fact -- 05:48</p> <p>11 ATTORNEY DAVIDSON: Wait a minute.</p> <p>12 ATTORNEY O'DELL: Let me just</p> <p>13 correct the record. What should have</p> <p>14 been marked as Exhibit 20 is what I'm</p> <p>15 putting in the chat. 05:48</p> <p>16 ATTORNEY DAVIDSON: But that's not</p> <p>17 what he cited. He cited Hurwitz Webb.</p> <p>18 No? I'm confused. Weren't you</p> <p>19 putting in the chat the paper that he</p> <p>20 cited in his report? 05:48</p> <p>21 ATTORNEY O'DELL: I believe so.</p> <p>22 ATTORNEY DAVIDSON: It says here</p> <p>23 Hurwitz Webb 2023.</p> <p>24 ATTORNEY O'DELL: Let me make</p> <p>25 sure. 05:48</p>	<p style="text-align: right;">Page 341</p> <p>1 few minutes ago in response to Ms. O'Dell's</p> <p>2 questions and said that you had cited a</p> <p>3 meta-analysis about -- from Hurwitz from</p> <p>4 2023 in your expert report, that actually</p> <p>5 wasn't true; right? 05:50</p> <p>6 ATTORNEY O'DELL: Object to the</p> <p>7 form.</p> <p>8 THE WITNESS: We were discussing a</p> <p>9 different paper.</p> <p>10 BY ATTORNEY DAVIDSON: 05:50</p> <p>11 Q. But you actually did not cite a</p> <p>12 2023 meta-analysis in your expert report?</p> <p>13 ATTORNEY O'DELL: Object to the</p> <p>14 form.</p> <p>15 THE WITNESS: So the paper that -- 05:50</p> <p>16 again, I haven't -- let me take a</p> <p>17 minute to --</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. Let's mark the paper you actually</p> <p>20 cited as Exhibit 23, and Noah can put it 05:50</p> <p>21 back up on the screen because you were</p> <p>22 led -- you were asked leading questions</p> <p>23 about having cited a meta-analysis that you</p> <p>24 didn't actually cite; correct?</p> <p>25 ATTORNEY O'DELL: Object to the 05:50</p>

<p style="text-align: right;">Page 342</p> <p>1 form.</p> <p>2 (Exhibit Number 23 was marked for</p> <p>3 identification.)</p> <p>4 BY ATTORNEY DAVIDSON:</p> <p>5 Q. Doctor? 05:51</p> <p>6 A. I'm looking.</p> <p>7 Q. Okay.</p> <p>8 A. Correct. The reference in the</p> <p>9 report is what was shown -- is it still --</p> <p>10 it's still on the screen, correct. But the 05:51</p> <p>11 paper --</p> <p>12 Q. When counsel asked --</p> <p>13 ATTORNEY O'DELL: He's not</p> <p>14 finished, please.</p> <p>15 THE WITNESS: I was just saying we 05:51</p> <p>16 were discussing a different paper, not</p> <p>17 this paper.</p> <p>18 BY ATTORNEY DAVIDSON:</p> <p>19 Q. So when counsel asked whether you</p> <p>20 cited a 2023 meta-analysis in your report 05:51</p> <p>21 and you said yes, that was not true;</p> <p>22 correct?</p> <p>23 ATTORNEY O'DELL: Object to form.</p> <p>24 THE WITNESS: There was a</p> <p>25 misunderstanding of the citation. 05:52</p>	<p style="text-align: right;">Page 344</p> <p>1 correct?</p> <p>2 ATTORNEY O'DELL: Objection to the</p> <p>3 form.</p> <p>4 THE WITNESS: The paper we were</p> <p>5 discussing is not the same as the 05:53</p> <p>6 paper cited in the report.</p> <p>7 BY ATTORNEY DAVIDSON:</p> <p>8 Q. Doctor, you testified a few minutes</p> <p>9 ago that it's often -- there will often be</p> <p>10 similar language to addressing basic 05:53</p> <p>11 concepts when it comes to cancer science;</p> <p>12 correct?</p> <p>13 A. Correct.</p> <p>14 Q. But, in fact, your language was</p> <p>15 identical, not similar, to language on 05:53</p> <p>16 certain websites; correct?</p> <p>17 ATTORNEY O'DELL: Objection to the</p> <p>18 form.</p> <p>19 THE WITNESS: As we discussed in a</p> <p>20 single sentence. 05:53</p> <p>21 BY ATTORNEY DAVIDSON:</p> <p>22 Q. And you say that similar language</p> <p>23 would be found in multiple places, but the</p> <p>24 fact is that the language you had that was</p> <p>25 identical to the language on the Mayo Clinic 05:53</p>
<p style="text-align: right;">Page 343</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. When counsel asked you whether you</p> <p>3 cited a 2023 meta-analysis in your report</p> <p>4 and you said you did, in fact, you did not</p> <p>5 cite a 2023 meta-analysis in your report 05:52</p> <p>6 having to do with aspirin use; correct?</p> <p>7 ATTORNEY O'DELL: Objection.</p> <p>8 Misstates the record.</p> <p>9 THE WITNESS: The paper we're</p> <p>10 looking at is a analysis of aspirin 05:52</p> <p>11 use.</p> <p>12 BY ATTORNEY DAVIDSON:</p> <p>13 Q. Is it a meta-analysis?</p> <p>14 A. It's a pooled analysis of eight</p> <p>15 case-control studies. 05:52</p> <p>16 Q. Is this the paper that you</p> <p>17 testified several minutes ago that you</p> <p>18 relied on in your report and cited in your</p> <p>19 report?</p> <p>20 A. So this was a paper cited in the 05:52</p> <p>21 report, but our discussion was on a</p> <p>22 different paper.</p> <p>23 Q. So you testified that you cited a</p> <p>24 paper in your report that's different from</p> <p>25 the paper you actually cited in your report; 05:52</p>	<p style="text-align: right;">Page 345</p> <p>1 website is not identical to any other</p> <p>2 language on the internet, is it?</p> <p>3 A. I haven't looked.</p> <p>4 Q. You're not aware of any other</p> <p>5 publications or websites that have the same 05:53</p> <p>6 language that you used in your report that</p> <p>7 we found in Wikipedia, the Mayo Clinic, and</p> <p>8 a scientific article; correct?</p> <p>9 ATTORNEY O'DELL: Object to the</p> <p>10 form. 05:54</p> <p>11 THE WITNESS: Again, I haven't</p> <p>12 looked to see if those -- what the</p> <p>13 instances of similar wording. But I</p> <p>14 would disagree. There's absolutely</p> <p>15 similar wording, but you're focused on 05:54</p> <p>16 the exact. Again, as was stated</p> <p>17 earlier, the question -- my question</p> <p>18 would be is there a question about the</p> <p>19 accuracy or other aspect of the</p> <p>20 statement and whether or not that 05:54</p> <p>21 statement is generally accepted.</p> <p>22 BY ATTORNEY DAVIDSON:</p> <p>23 Q. Dr. Levy, does plagiarism -- is the</p> <p>24 definition of plagiarism turn on whether</p> <p>25 information is accurate, or does it turn on 05:54</p>


<p style="text-align: right;">Page 346</p> <p>1 whether information is properly cited?</p> <p>2 ATTORNEY O'DELL: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: So, again, as we</p> <p>5 discussed and as we covered earlier, 05:55</p> <p>6 depending on the requested format or</p> <p>7 type of information that's being</p> <p>8 asked, depending on the assignment, it</p> <p>9 would be whether or not -- it would</p> <p>10 have a significant bearing on whether 05:55</p> <p>11 that would be a plagiarism event or</p> <p>12 otherwise.</p> <p>13 BY ATTORNEY DAVIDSON:</p> <p>14 Q. Were you told in this assignment</p> <p>15 that you didn't have to have proper 05:55</p> <p>16 scientific citations and that you could cite</p> <p>17 from sources without proper citation?</p> <p>18 ATTORNEY O'DELL: Object to the</p> <p>19 form.</p> <p>20 THE WITNESS: No, but that's not 05:55</p> <p>21 what I'm saying. There's a -- you're</p> <p>22 pulling a single sentence which was</p> <p>23 having no significant bearing in terms</p> <p>24 of the conclusions of the report and</p> <p>25 stating that because it wasn't cited 05:55</p>	<p style="text-align: right;">Page 348</p> <p>1 What scientific literature can you</p> <p>2 cite in support of that testimony?</p> <p>3 ATTORNEY O'DELL: Object to the</p> <p>4 form.</p> <p>5 THE WITNESS: Well, certainly many 05:57</p> <p>6 of the studies that we've been talking</p> <p>7 about today are appropriate for that</p> <p>8 very same thing when we're discussing</p> <p>9 the role of environmental factors in</p> <p>10 the progression of disease. None of 05:57</p> <p>11 the case control or meta-analysis or</p> <p>12 other epidemiological studies we've</p> <p>13 look at for the most part excluded or</p> <p>14 included individuals with any specific</p> <p>15 mutation or absence of mutation. 05:57</p> <p>16 I would say there's a tremendous</p> <p>17 amount of literature indicating the</p> <p>18 increase -- the increased risk that</p> <p>19 would be from environmental factors in</p> <p>20 light of genetic testing as well. 05:57</p> <p>21 BY ATTORNEY DAVIDSON:</p> <p>22 Q. Can you point me to any scientific</p> <p>23 studies that address -- or scientific</p> <p>24 papers, treatises, et cetera, that support</p> <p>25 your theory about the lottery ticket and the 05:58</p>
<p style="text-align: right;">Page 347</p> <p>1 as far as having the same wording for</p> <p>2 that single sentence, whether it be</p> <p>3 from any publicly available website,</p> <p>4 that the attribution for that website</p> <p>5 for that specific generally understood 05:56</p> <p>6 fact, it would be indicative of</p> <p>7 plagiarism.</p> <p>8 BY ATTORNEY DAVIDSON:</p> <p>9 Q. Do you know what happens to a</p> <p>10 student who submits a paper in college that 05:56</p> <p>11 has a sentence from the Mayo Clinic that's</p> <p>12 not cited and a sentence from Wikipedia</p> <p>13 that's not cited and yet two more sentences</p> <p>14 from a scientific article that aren't cited?</p> <p>15 ATTORNEY O'DELL: Objection to the 05:56</p> <p>16 form.</p> <p>17 THE WITNESS: No, I've not</p> <p>18 attempted to look at that.</p> <p>19 BY ATTORNEY DAVIDSON:</p> <p>20 Q. You testified in a very long-winded 05:56</p> <p>21 answer to Ms. O'Dell that genetic mutations</p> <p>22 can make you more susceptible to</p> <p>23 environmental factors. You provided an</p> <p>24 analogy to lottery tickets and snowballs or</p> <p>25 something like that. 05:57</p>	<p style="text-align: right;">Page 349</p> <p>1 punches and the genetic mutations make you</p> <p>2 more susceptible to environmental factors?</p> <p>3 ATTORNEY O'DELL: Objection.</p> <p>4 Asked and answered.</p> <p>5 THE WITNESS: There's a -- 05:58</p> <p>6 certainly. I mean, I would have to --</p> <p>7 BY ATTORNEY DAVIDSON:</p> <p>8 Q. Great. Can you list them?</p> <p>9 ATTORNEY O'DELL: Don't interrupt,</p> <p>10 please. 05:58</p> <p>11 THE WITNESS: Again, I'd have to</p> <p>12 provide them. There's a rich</p> <p>13 literature on cancer evolution and</p> <p>14 progression that the presence or</p> <p>15 inhibit -- and there's even many 05:58</p> <p>16 mechanistic studies when DNA repair</p> <p>17 genes like BRCA1 and 2 are inhibited,</p> <p>18 you see a rise in mutation rate.</p> <p>19 Again, there's ample evidence to</p> <p>20 suggest and support that statement 05:58</p> <p>21 that with a decrease in call it DNA</p> <p>22 integrity or cellular integrity, then</p> <p>23 you have a higher probability of that</p> <p>24 cell progressing that's been done in</p> <p>25 in vitro studies as well as in vivo 05:59</p>

<p style="text-align: right;">Page 350</p> <p>1 studies.</p> <p>2 Again, it would be a different</p> <p>3 question than I was asked in this</p> <p>4 report, and I would have to develop a</p> <p>5 new report to that, but that 05:59</p> <p>6 literature absolutely exists.</p> <p>7 BY ATTORNEY DAVIDSON:</p> <p>8 Q. You testified -- you gave this</p> <p>9 opinion that genetic mutations make you more</p> <p>10 susceptible to environmental factors. I 05:59</p> <p>11 need to know what your basis is for that.</p> <p>12 What is your scientific basis? What studies</p> <p>13 are you relying on? What science are you</p> <p>14 relying on for that opinion?</p> <p>15 ATTORNEY O'DELL: Objection. 05:59</p> <p>16 Compound, asked and answered.</p> <p>17 THE WITNESS: I gave an opinion</p> <p>18 that genetic mutations which increase</p> <p>19 susceptibility to cancer as we've been</p> <p>20 discussing that -- and I was very 05:59</p> <p>21 specific when I gave the example of</p> <p>22 the step function. I didn't indicate</p> <p>23 that it modified the risk from where</p> <p>24 you began at, say, a baseline of no</p> <p>25 mutation. 06:00</p>	<p style="text-align: right;">Page 352</p> <p>1 article or treatise in support of your</p> <p>2 lottery ticket theory.</p> <p>3 ATTORNEY O'DELL: Objection to</p> <p>4 form.</p> <p>5 BY ATTORNEY DAVIDSON: 06:01</p> <p>6 Q. Your lottery punch, whatever it is.</p> <p>7 ATTORNEY O'DELL: Objection to</p> <p>8 form. Asked and answered.</p> <p>9 THE WITNESS: As I said, that was</p> <p>10 an example that was provided to 06:01</p> <p>11 indicate a summary of my knowledge in</p> <p>12 the field and my experiences to try to</p> <p>13 make it more relatable. I cannot</p> <p>14 direct you to a scientific paper that</p> <p>15 would support the precise analogy that 06:01</p> <p>16 I provided as far as the lottery</p> <p>17 ticket, but I certainly will make an</p> <p>18 effort to look for one.</p> <p>19 BY ATTORNEY DAVIDSON:</p> <p>20 Q. I don't need a scientific paper 06:01</p> <p>21 that supports the analogy, and you know</p> <p>22 that. I need a scientific that supports the</p> <p>23 underlying scientific theory.</p> <p>24 ATTORNEY O'DELL: Objection.</p> <p>25 ///</p>
<p style="text-align: right;">Page 351</p> <p>1 I think I was quite specific in my</p> <p>2 explanation that I did not state in</p> <p>3 that genetic mutations made you more</p> <p>4 susceptible to environmental factors.</p> <p>5 In fact, I was very careful to state 06:00</p> <p>6 that those genetic variants had set</p> <p>7 you at an already higher risk for</p> <p>8 cancer. I think that is not an</p> <p>9 arguable point. That's exactly what</p> <p>10 we've been discussing about these 06:00</p> <p>11 different mutations.</p> <p>12 But then the environmental factor</p> <p>13 would have the same added risk whether</p> <p>14 you had those mutations or you didn't.</p> <p>15 Whatever that is is added on top of 06:00</p> <p>16 that. Now, it means with the mutation</p> <p>17 you're climbing higher on the risk</p> <p>18 scale if you assume that environmental</p> <p>19 exposure has the same additive risk.</p> <p>20 I think it sounds like we're arguing a 06:00</p> <p>21 little bit about semantics. Again, I</p> <p>22 think I was quite clear in that</p> <p>23 example.</p> <p>24 BY ATTORNEY DAVIDSON:</p> <p>25 Q. I am asking for a scientific 06:01</p>	<p style="text-align: right;">Page 353</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Can you provide one or not?</p> <p>3 ATTORNEY O'DELL: Objection.</p> <p>4 Asked and answered. He's answered</p> <p>5 your question four times now. You can 06:02</p> <p>6 keep asking.</p> <p>7 ATTORNEY DAVIDSON: He has not</p> <p>8 given me a scientific paper yet.</p> <p>9 ATTORNEY O'DELL: Well, he has</p> <p>10 answered your question and responded 06:02</p> <p>11 in terms of his expertise, experience,</p> <p>12 and knowledge of the field. I mean,</p> <p>13 he doesn't have to give you a specific</p> <p>14 reference.</p> <p>15 BY ATTORNEY DAVIDSON: 06:02</p> <p>16 Q. Dr. Levy, can you point to any</p> <p>17 scientific literature that supports your</p> <p>18 theory that genetic mutations can make you</p> <p>19 more susceptible to environmental factors?</p> <p>20 ATTORNEY O'DELL: Objection. 06:02</p> <p>21 Asked and answered, misrepresents what</p> <p>22 he said just a few minutes ago.</p> <p>23 THE WITNESS: I would need to</p> <p>24 perform -- I would need to gather some</p> <p>25 of those references to provide them. 06:02</p>

<p style="text-align: right;">Page 354</p> <p>1 BY ATTORNEY DAVIDSON:</p> <p>2 Q. Is it your testimony that those</p> <p>3 references exist?</p> <p>4 A. Yes.</p> <p>5 Q. Okay. We'll ask your counsel to 06:03</p> <p>6 have you provide them along with your fixed</p> <p>7 CV after this deposition.</p> <p>8 At this point I don't have any</p> <p>9 further questions unless Ms. O'Dell does.</p> <p>10 ATTORNEY O'DELL: I have just one 06:03</p> <p>11 area of follow-up.</p> <p>12</p> <p>13 FURTHER EXAMINATION</p> <p>14 BY ATTORNEY O'DELL:</p> <p>15 Q. Dr. Levy, I want to direct you back 06:03</p> <p>16 to the Hurwitz paper that was marked as</p> <p>17 Exhibit 20 originally in the chat and that</p> <p>18 was a paper titled Association of Frequent</p> <p>19 Aspirin Use with Ovarian Cancer Risk</p> <p>20 According to Genetic Susceptibility, 06:03</p> <p>21 published in 2023.</p> <p>22 Do you see that?</p> <p>23 A. Uh-huh.</p> <p>24 Q. And I created the confusion in my</p> <p>25 questions, and I wanted to straighten it 06:04</p>	<p style="text-align: right;">Page 356</p> <p>1 Q. I see. I'm sorry.</p> <p>2 A. The studies are from the Ovarian</p> <p>3 Cancer Association Consortium.</p> <p>4 Q. I could ask a better question.</p> <p>5 Is this a pooled analysis of eight 06:06</p> <p>6 individual studies?</p> <p>7 A. According to paper, it is.</p> <p>8 Q. And what did they conclude, or what</p> <p>9 was the meaning of the paper?</p> <p>10 A. So they were looking at the genetic 06:06</p> <p>11 susceptibility to ovarian cancer based on</p> <p>12 identified common genetic variants and then</p> <p>13 evaluating if the presence of those variants</p> <p>14 alters or modifies the protective</p> <p>15 association with aspirin use or other 06:06</p> <p>16 NSAIDs.</p> <p>17 Q. Did they conclude that there was a</p> <p>18 protective effect of aspirin?</p> <p>19 A. Yes. Their conclusion was that the</p> <p>20 identified genetic variants do not appear to 06:06</p> <p>21 modify that protective effect.</p> <p>22 Q. And is that consistent with the</p> <p>23 manner in which -- their finding, is that</p> <p>24 consistent with the manner in which you</p> <p>25 cited it in your report on page 13? 06:07</p>
<p style="text-align: right;">Page 355</p> <p>1 out. First, is this the paper that you cite</p> <p>2 in -- you actually specifically cite in your</p> <p>3 report?</p> <p>4 A. Yes, the title Association of</p> <p>5 Frequent Aspirin Use is the paper I cite in 06:04</p> <p>6 the report.</p> <p>7 Q. And is this paper published --</p> <p>8 excuse me.</p> <p>9 Is this paper the work of -- from</p> <p>10 the Ovarian Cancer Association Consortium? 06:04</p> <p>11 A. I'm just confirming the -- I'm just</p> <p>12 looking at the authors' affiliations. I'm</p> <p>13 not familiar with the -- with that</p> <p>14 consortium, but I was looking to see if they</p> <p>15 reference that in the -- 06:05</p> <p>16 Q. If you look on page 1 of the</p> <p>17 exhibit under the section Design, Setting,</p> <p>18 and Participants, does this indicate that</p> <p>19 this was from the Ovarian Cancer Association</p> <p>20 Consortium? 06:05</p> <p>21 A. The population-based case-control</p> <p>22 studies were from the Ovarian Cancer</p> <p>23 Association Consortium. I was looking at</p> <p>24 the author affiliations to see if they were</p> <p>25 affiliated with that same. 06:05</p>	<p style="text-align: right;">Page 357</p> <p>1 A. Sorry. I'm just looking at to</p> <p>2 confirm on 13. Yes, it is. The quote from</p> <p>3 my report is: Moreover the protective</p> <p>4 effect of aspirin is maintained even in</p> <p>5 individuals with genetic susceptibility to 06:07</p> <p>6 ovarian cancer.</p> <p>7 Q. Okay. I now want to mark as an</p> <p>8 Exhibit 24 the Hurwitz paper published in</p> <p>9 2022 entitled Modification of the</p> <p>10 Association Between Frequent Aspirin Use and 06:08</p> <p>11 Ovarian Cancer Risk.</p> <p>12 (Exhibit Number 24 was marked for</p> <p>13 identification.)</p> <p>14 BY ATTORNEY O'DELL:</p> <p>15 Q. Doctor, is that paper also 06:08</p> <p>16 published as a result of the work of the</p> <p>17 Ovarian Cancer Consortia?</p> <p>18 A. The Ovarian Cancer Cohort</p> <p>19 Consortium, correct, as well as the Ovarian</p> <p>20 Cancer Association Consortium. There are 06:08</p> <p>21 two closely named consortia that contributed</p> <p>22 to studies in the second paper, the paper</p> <p>23 that is in Exhibit 24.</p> <p>24 Q. In this paper from that group of</p> <p>25 researchers or those two groups of 06:08</p>

<p style="text-align: right;">Page 358</p> <p>1 researchers, do they comment on whether 2 ovarian cancer is associated with chronic 3 inflammation? 4 A. They do comment that in the 5 introduction. 06:08 6 Q. Is that what you were referring to 7 before in your prior testimony? 8 A. That's correct. 9 Q. And what do they say? 10 A. So they -- quoting from the 06:09 11 introduction: Chronic inflammation likely 12 plays a key role in ovarian carcinogenesis. 13 Q. In the conclusion of the paper, do 14 they conclude that frequent aspirin use is 15 associated with lower ovarian cancer risk? 06:09 16 A. That's correct. 17 Q. You were asked a series of 18 questions about whether mutations make an 19 individual more -- inherited mutations make 20 an individual more susceptible to ovarian 06:09 21 cancer and specifically to the increased 22 risk associated with environmental agents 23 such as talc. 24 Do you recall those questions? 25 A. I do. 06:09</p>	<p style="text-align: right;">Page 360</p> <p>1 A. It is. 2 ATTORNEY O'DELL: I have nothing 3 further. 4 ATTORNEY DAVIDSON: I just have a 5 few more questions. 06:11 6 7 FURTHER EXAMINATION 8 BY ATTORNEY DAVIDSON: 9 Q. Dr. Levy, the questions you just 10 answered about cancer, are those specific to 06:11 11 ovarian cancer? 12 A. No, they are not. 13 Q. Do you know if everything you just 14 said is accepted by ovarian cancer 15 researchers? 06:11 16 ATTORNEY O'DELL: Object to form. 17 THE WITNESS: So I would be very 18 confident in stating that most ovarian 19 cancer researcher would no longer 20 characterize things based on ovarian 06:11 21 or an organ-specific cancer. In fact, 22 they would characterize them based on 23 the cell type of initiation whether it 24 be epithelial or et cetera. I think 25 that has now become the standard in 06:11</p>
<p style="text-align: right;">Page 359</p> <p>1 Q. And you were asked over and again 2 if there were specific scientific references 3 that you could name here today. 4 Do you recall that? 5 A. Yes, I do. 06:10 6 Q. Is the principle that you testified 7 to generally accepted in your field of 8 genetics? 9 A. So cancer has had a long-standing 10 principle of a multi-hit hypothesis, meaning 06:10 11 that you need multiple errors and multiple 12 genes to overcome the usual growth 13 inhibition or self-cycle control that exists 14 in normal cells. 15 So when those things begin to break 06:10 16 down, you have defects in DNA repair. We've 17 been talking about BRCA1 and 2. My analogy 18 was building on that level of understanding, 19 building on the basic mechanisms of cancer 20 initiation and progression from a molecular 06:10 21 standpoint. 22 Q. Is that basic understanding 23 something that is well known, well 24 established, and generally accepted in your 25 field of expertise? 06:10</p>	<p style="text-align: right;">Page 361</p> <p>1 the cancer field. 2 That would be my expectation is 3 they would agree with my foundational 4 description in terms of cancer 5 initiation and progression from a cell 06:11 6 mechanism perspective, but I don't 7 think you'd see a lot of enthusiasm 8 for limiting that or being as 9 imprecise as stating ovarian versus -- 10 I think that's certainly what the 06:12 11 molecular understanding of cancer has 12 shown us is that it is more important 13 of cells of origin or cell type of 14 origin than organ of origin. 15 BY ATTORNEY DAVIDSON: 06:12 16 Q. Do ovarian cancer researchers -- 17 hey, did everybody else just go black on 18 their screen? 19 ATTORNEY O'DELL: No. 20 ATTORNEY DAVIDSON: My screen is 06:12 21 pitch black. I don't know why. My 22 computer really wants this deposition 23 to end. 24 THE WITNESS: Your picture 25 actually froze. 06:12</p>

<p style="text-align: right;">Page 362</p> <p>1 ATTORNEY DAVIDSON: My whole 2 computer is black. 3 ATTORNEY O'DELL: We can hear you, 4 Jessica; so you can continue. 5 ATTORNEY DAVIDSON: Okay. Great. 06:12 6 I'm almost done. 7 BY ATTORNEY DAVIDSON: 8 Q. Can you point me to any ovarian 9 cancer researchers who have adopted the 10 approach that you just laid out in terms of 06:12 11 hits combining genetics and environmental 12 factors? 13 A. I would have to -- not off the top 14 of my head as far as specific names, but I 15 would fully expect that all ovarian cancer 06:13 16 researchers will -- would absolutely embrace 17 a version of what I just described as far as 18 the initiation and progression of cancer 19 from a cell -- from a mechanistic 20 standpoint. 06:13 21 Q. Would you defer to an ovarian 22 cancer researcher to address those types of 23 questions? 24 ATTORNEY O'DELL: Object to form. 25 THE WITNESS: Would I defer to an 06:13</p>	<p style="text-align: right;">Page 364</p> <p>1 BY ATTORNEY DAVIDSON: 2 Q. Both Hurwitz papers were 3 co-authored by O'Brien and Wentzensen; 4 correct? 5 A. I can confirm looking at 06:14 6 Exhibit 24, yes. 7 Q. Great. Okay. And that's the same 8 O'Brien and Wentzensen who wrote that it is 9 difficult to conclude that the observed 10 associations in some studies related to talc 06:14 11 and ovarian cancer are causal; correct? 12 ATTORNEY O'DELL: Object to the 13 form. 14 THE WITNESS: So Hurwitz and 15 Wentzensen are also co-authors on the 06:15 16 reference paper. I don't see O'Brien 17 as a co-author on that. 18 BY ATTORNEY DAVIDSON: 19 Q. I'm talking about 24. 20 A. Yeah. So 24, yes, but not the -- 06:15 21 ATTORNEY O'DELL: Not Exhibit 20. 22 THE WITNESS: Not Exhibit 20. 23 BY ATTORNEY DAVIDSON: 24 Q. I'm talking about Exhibit 24. 25 That's the same O'Brien and Wentzensen who 06:15</p>
<p style="text-align: right;">Page 363</p> <p>1 ovarian cancer -- I wouldn't -- no, I 2 don't think I would defer to an 3 ovarian cancer expert to answer those 4 questions. I think I'm confident 5 enough in my knowledge in this field 06:14 6 to know that this is foundationally 7 correct and that should any ovarian 8 cancer researcher or any researcher 9 for that matter disagree with the very 10 broad summary mechanistic aspects we 06:14 11 were just discussing, then I would 12 take exception with that position. 13 BY ATTORNEY DAVIDSON: 14 Q. The Hurwitz paper is co-authored by 15 O'Brien and Wentzensen; right? 06:14 16 ATTORNEY O'DELL: I'm sorry. I 17 missed the first part, Jessica. What 18 did you say? 19 BY ATTORNEY DAVIDSON: 20 Q. The Hurwitz paper was co-authored 06:14 21 by O'Brien and Wentzensen? 22 ATTORNEY O'DELL: Which one were 23 you referring to? 24 THE WITNESS: Exhibit 24 is, yes. 25 ///</p>	<p style="text-align: right;">Page 365</p> <p>1 also wrote a paper in which they stated it 2 is difficult to conclude that the observed 3 associations are causal; correct? 4 ATTORNEY O'DELL: Object to the 5 form. 06:15 6 THE WITNESS: Which exhibit was 7 the -- are you referring to for the -- 8 for their other paper? 9 BY ATTORNEY DAVIDSON: 10 Q. You don't recall that they wrote 06:15 11 that? 12 ATTORNEY O'DELL: Object to the 13 form. 14 THE WITNESS: We've been -- again, 15 I'm asking to confirm. We've been 06:15 16 talking about a lot of papers today. 17 BY ATTORNEY DAVIDSON: 18 Q. Okay. If you don't recall, you can 19 just let me know that. 20 ATTORNEY O'DELL: Which exhibit 06:16 21 are you referring to, please? 22 BY ATTORNEY DAVIDSON: 23 Q. Do you not recall that? 24 ATTORNEY O'DELL: Object to the 25 form. 06:16</p>

<p style="text-align: right;">Page 366</p> <p>1 THE WITNESS: Again, I was asking 2 to -- I'd like to answer your question 3 completely. 4 BY ATTORNEY DAVIDSON: 5 Q. I'm asking if you recall that that 06:16 6 is the same Wentzensen and O'Brien who have 7 written that it is difficult to conclude 8 that the observed associations are causal? 9 ATTORNEY O'DELL: If you're 10 reading from a particular paper that's 06:16 11 been marked or not marked, would you 12 please identify. 13 ATTORNEY DAVIDSON: Actually I 14 just remembered it. 15 BY ATTORNEY DAVIDSON: 06:16 16 Q. Did you remember it, Doctor, or 17 not? 18 ATTORNEY O'DELL: Objection to the 19 form. 20 THE WITNESS: As we were talking 06:16 21 about on a number of subjects today 22 from plagiarism to others, I try to be 23 more precise than just pulling out 24 single sentences. 25 ///</p>	<p style="text-align: right;">Page 368</p> <p>1 I'm asking you what you recall. How can you 2 recall something and looking a paper? 3 That's not a recollection. 4 ATTORNEY O'DELL: You referred to 5 the Wentzensen and O'Brien review just 06:17 6 a moment ago. That's the paper. 7 BY ATTORNEY DAVIDSON: 8 Q. I'm asking if you recall that these 9 are the same two people who have said that 10 it is difficult to conclude that the 06:18 11 associations that have been observed are 12 causal. 13 A. So I recall the two individuals and 14 us discussing their papers. I do not recall 15 that they were associated with the specific 06:18 16 quote that you just described. 17 Q. Okay. I have no more questions. 18 ATTORNEY O'DELL: Nothing further. 19 Thank you. We're off the record. 20 (Whereupon the deposition 21 concluded at 6:18 p.m.) 22 23 24 25</p>
<p style="text-align: right;">Page 367</p> <p>1 BY ATTORNEY DAVIDSON: 2 Q. I see. So you do not recall that 3 Doctors O'Brien and Wentzensen published a 4 review paper cited in your report that said 5 they do not -- that it is difficult to 06:16 6 conclude that the observed association is 7 causal? 8 ATTORNEY O'DELL: Asking him to 9 confirm a quote from a paper is 10 improper, but thank you for 06:17 11 identifying it. He can look it since 12 it's been marked as an exhibit. 13 BY ATTORNEY DAVIDSON: 14 Q. Do you recall it or not, Doctor? 15 ATTORNEY O'DELL: The paper or the 06:17 16 quote, Jessica? 17 BY ATTORNEY DAVIDSON: 18 Q. Doctor, if you cannot tell me 19 whether O'Brien and Wentzensen have stated 20 that it's difficult to conclude that the 06:17 21 associations are causal, just say so. Do 22 you recall that they said that or not? 23 A. I recall from that same -- in 24 looking at that same paper. 25 Q. What do you mean that same paper? 06:17</p>	<p style="text-align: right;">Page 369</p> <p>1 REPORTER'S CERTIFICATE 2 3 The undersigned Certified Shorthand 4 Reporter licensed in the states of 5 California, Nevada, and Washington does 6 hereby certify: 7 That the foregoing deposition was 8 taken before me at the time and place 9 therein set forth, at which time the witness 10 was duly sworn by me; 11 That the testimony of the witness 12 and all objections made at the time of the 13 examination were recorded stenographically 14 by me and were thereafter transcribed, said 15 transcript being a true copy of my shorthand 16 notes thereof. 17 I further declare that I have no 18 interest in the outcome of the action. 19 In witness whereof, I have 20 subscribed my name this 17th day of May, 21 2024 22 23 24 25</p> <p style="text-align: center;"></p> <p>LISA MOSKOWITZ California CSR 10816, RPR, CRR, CLR Washington CCR 21001437, Nevada CCR 991 NCRA Realtime Systems Administrator</p>

<p style="text-align: right;">Page 370</p> <p>1 INSTRUCTIONS TO WITNESS</p> <p>2</p> <p>3 Please read your deposition over</p> <p>4 carefully and make necessary corrections.</p> <p>5 You should state the reason in the</p> <p>6 appropriate space on the errata sheet for</p> <p>7 any corrections that are made.</p> <p>8 After doing so, please sign the</p> <p>9 errata sheet and date it.</p> <p>10 You are signing same subject to the</p> <p>11 changes you have noted on the errata sheet,</p> <p>12 which will be attached to your deposition.</p> <p>13 It is imperative that you return</p> <p>14 the original errata sheet to the deposing</p> <p>15 attorney within thirty (30) days of receipt</p> <p>16 of the deposition transcript by you. If you</p> <p>17 fail to do so, the deposition transcript may</p> <p>18 be deemed to be accurate and may be used in</p> <p>19 court.</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p style="text-align: right;">Page 372</p> <p>1 ACKNOWLEDGMENT OF DEPONENT</p> <p>2</p> <p>3 I, SHAWN LEVY, M.D., do hereby</p> <p>4 certify that I have read the foregoing</p> <p>5 pages, 1-372, and that the same is a correct</p> <p>6 transcription of the answers given by me to</p> <p>7 the questions therein propounded, except for</p> <p>8 the corrections or changes in form or</p> <p>9 substance, if any, noted in the attached</p> <p>10 Errata Sheet.</p> <p>11</p> <p>12</p> <p>13 _____</p> <p>14 SHAWN LEVY, M.D. DATE</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>
<p style="text-align: right;">Page 371</p> <p>1 ERRATA SHEET</p> <p>2 -----</p> <p>3</p> <p>4 PAGE LINE CHANGE</p> <p>5 _____</p> <p>6 REASON: _____</p> <p>7 _____</p> <p>8 REASON: _____</p> <p>9 _____</p> <p>10 REASON: _____</p> <p>11 _____</p> <p>12 REASON: _____</p> <p>13 _____</p> <p>14 REASON: _____</p> <p>15 _____</p> <p>16 REASON: _____</p> <p>17 _____</p> <p>18 REASON: _____</p> <p>19 _____</p> <p>20 REASON: _____</p> <p>21 _____</p> <p>22 REASON: _____</p> <p>23 _____</p> <p>24 REASON: _____</p> <p>25</p>	<p style="text-align: right;">Page 373</p> <p>1 LAWYER'S NOTES</p> <p>2 PAGE LINE</p> <p>3 _____</p> <p>4 _____</p> <p>5 _____</p> <p>6 _____</p> <p>7 _____</p> <p>8 _____</p> <p>9 _____</p> <p>10 _____</p> <p>11 _____</p> <p>12 _____</p> <p>13 _____</p> <p>14 _____</p> <p>15 _____</p> <p>16 _____</p> <p>17 _____</p> <p>18 _____</p> <p>19 _____</p> <p>20 _____</p> <p>21 _____</p> <p>22 _____</p> <p>23 _____</p> <p>24 _____</p> <p>25 _____</p>

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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